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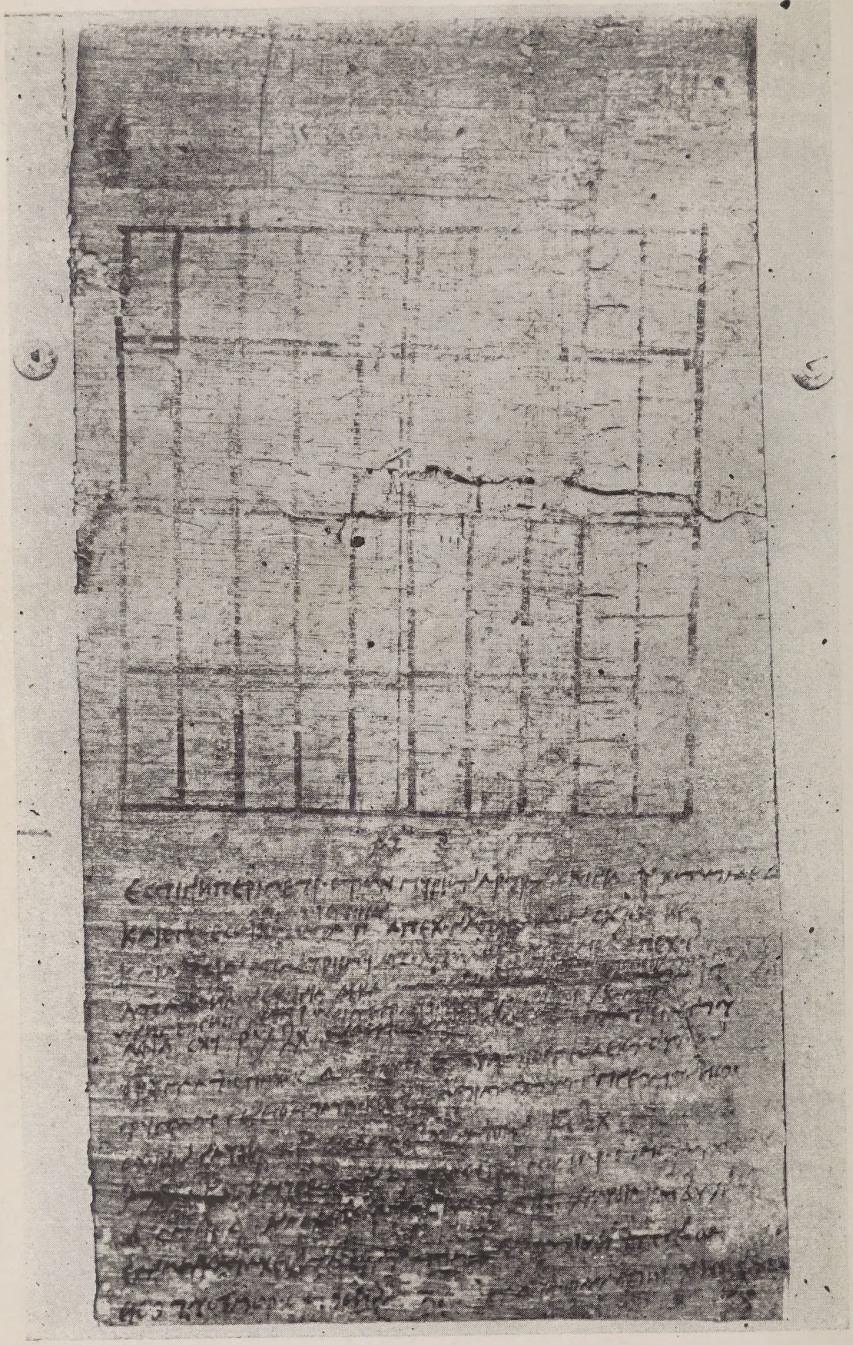

PLATE I

P. Lille 1, Recto. Map and Device of the Irrigation Work on the Estate of Apollonius

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UNIVERSITY OF WISCONSIN STUDIES
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A LARGE ESTATE IN EGYPT IN THE THIRD CENTURY B. C.

A STUDY IN ECONOMIC HISTORY

BY
MICHAEL ROSTOVTZEFF
PROFESSOR OF HISTORY

MADISON
1922

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TO

BERNARD P. GRENFELL

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PREFACE

I have but few points to emphasize in this short preface. The most important is to express my conviction that the progress of our studies on papyrology, progress which is of the greatest importance for our knowledge of the ancient and thus of the modern world in general, largely depends on a systematic excavation of as many cities and villages of the Fayum as possible. What has been done up to this time is merely fairly systematic digging for papyri, hunting after documents, mostly regardless of other remains uncovered during the excavations. However the more we deal with the written documents the more we feel the necessity of having before us the scenery in which the Greco-Egyptian life was led. For a better understanding of the documents, sometimes for understanding them at all, we need to have before us a full picture of one or more of the villages of the Fayum, the ruins duly explored, mapped and photographed, the remains of the furniture, the implements and utensils of its inhabitants. Moreover I am sure that such an exploration if systematic and scientific will certainly yield many new papyri or at least will make it certain that no more papyri can be found in this place. I have often discussed this idea with Mr. B. P. Grenfell and he fully agreed with me. Some days ago I received a letter from Mr. C. C. Edgar, another great authority in this domain. He writes as follows: "The idea of systematically clearing one of the Fayum sites has long attracted me. But it would have to be done by a European or American society; the Egyptian Government, I feel sure, will never undertake it. And if it is to be done it must be begun at once, for the destruction of all these sites has become more and more rapid. In fact I am afraid it is too late to do anything of the sort at Philadelphia, though papyri are still being found there (there was another big find last year); but it might still be possible to work Batn Harit (Theadelphia)."

Is it utopian to think that there are men and women in the United States who may grasp the importance of such excavations and may help one of the existing organizations to carry out such an excavation?

The second point, not less important to me personally, is to express my warmest thanks to those who helped me in bringing together and explaining the important material which forms the subject of this book. I am greatly indebted to Mr. C. C. Edgar for sending me his valuable articles and for supplying me with the photographs of the Cairo papyri which are reproduced on pl. II and III. Dr. H. J. Bell was kind enough to lend me his copies of the Zenon papyri of the British Museum. Professor P. Jouguet has sent me the photograph of the top of P. Lille 1, reproduced here on pl. I. But my greatest thanks are due to my colleague and friend, Professor E. H. Byrne, who helped me in the most unselfish way to give to my English respectable form. Many thanks are also due to Professor W. L. Westermann who was good enough to read the proofs of this book. The Index was compiled by my wife, Mrs. S. Rostovtzeff.

LIST OF ABBREVIATIONS

ARCH.—*Archiv für Papyrusforschung*, herausgegeben von U. Wilcken, I-VI, 1901-1920.

B. G. U.—*Aegyptische Urkunden aus den Museen zu Berlin*, herausgegeben von der Generalverwaltung. *Griechische Urkunden*, I-IV, 1895–1912.

DIKAIOMATA.—*Dikaiomata, Auszüge aus Alexandrinischen Gesetzen und Verordnungen in einem Papyrus des Philologischen Seminars der Universität Halle mit einem Anhang weiterer Papyri derselben Sammlung*, herausgegeben von der Graeca Halensis, Berlin, 1913.

P. ELEPH.—*Elephantine-Papyri*, bearbeitet von Rubensohn, mit Beiträgen von Schubart und Spiegelberg, Berlin, 1907. (Special volume of B. G. U.)

P. FREIB.—*Mittheilungen aus der Freiburger Papyrussammlung*, I-II. *Sitzungsberichte der Heidelberger Akademie der Wissenschaften* 1914, 2 Abhandlung (*Ptolemäische Kleruchenurkunde*, herausgegeben von M. Gelzer).

P. GEN.—*Les papyrus de Genève*, transcrits et publiés par J. Nicole, I, Genève, 1896-1906.

P. GIESS.—*Griechische Papyri im Museum des Oberhessischen Geschichtsvereins zu Giessen*, im Verein mit O. Eger herausgegeben und erklärt von E. Kornemann und P. M. Meyer, I, Leipzig, 1910-1912.

P. GRAD.—*Griechische Papyri der Sammlung Gradenwitz*, herausgegeben von G. Plaumann. *Sitzungsberichte der Heidelberger Akademie der Wissenschaften*, 1914, 15 Abhandlung.

P. GRENFELL I—*An Alexandrian Erotic Fragment and other Greek Papyri chiefly Ptolemaic* edited by B. P. Grenfell, Oxford, 1896.

P. GRENFELL II—*New Classical Fragments and other Greek and Latin Papyri* edited by B. P. Grenfell and A. Hunt, Oxford, 1897.

P. HAL.—See *Dikaiomata*.

P. HAMB.—*Griechische Papyruskunden der Hamburger Stadtbibliothek*, herausgegeben und erklärt von P. M. Meyer, I, 1 and 2, Leipzig, 1911, 1913.

P. HIB.—*The Hibeh Papyri* edited by B. P. Grenfell and A. Hunt, I, London, 1906.

P. LILLE—*Papyrus Grecs* publiés sous la direction de P. Jouguet avec la collaboration de P. Collart, J. Lesquier, M. Xoual, I, Paris, 1907; II (*Papyrus de Magdola*, seconde édition par J. Lesquier), Paris, 1912.

P. LOND.—*Greek Papyri in the British Museum. Catalogue with Texts*, I, 1893 and II, 1898 edited by F. Kenyon; III, 1907, ed. by H. I. Bell and F. Kenyon; IV, 1910 and V, 1917 ed. by H. I. Bell.

P. LOND. INV.—unpublished papyri in the British Museum (correspondence of Zenon).

P. LOUVRE—*Notices et Extraits des Manuscrits grecs de la Bibliothèque Impériale* v. XVIII par Brunet de Presle, Paris, 1865.

P. MAGD.—See *P. Lille* II.

P. MEYER, JURISTISCHE PAPYRI—*Juristische Papyri. Erklärung von Urkunden zur Einführung in die juristische Papyruskunde* von P. M. Meyer, Berlin, 1920.

P. MICH. INV.—unpublished Papyrus in the Library of the University of Michigan (correspondence of Zenon).

P. OXYR.—*The Oxyrynchus papyri* parts I-XIV, ed. B. P. Grenfell and A. Hunt. London, 1898-1920.

P. PARIS.—See *P. Louvre.*

P. PETRIE—*The Flinders Petrie Papyri, with transcriptions, commentaries and index*, I, II ed. by the Rev. J. P. Mahaffy, Dublin, 1891, 1893; III, ed. by the Rev. J. P. Mahaffy and J. A. Smyly, Dublin, 1905.

R. L. or REV. LAWS—*Revenue Laws of Ptolemy Philadelphus* ed. by B. P. Grenfell. Oxford. 1896.

P. RYL.—*Catalogue of the Greek Papyri in the John Rylands Library*, Manchester. Vol. II. ed. by J. de M. Johnson, V. Martin, A. Hunt. Manchester. 1915.

P. RYL. 8—unpublished Papyrus in the Rylands Library at Manchester (correspondence of Zenon).

P.S.I.—*Pubblicazioni della Società Italiana per la ricerca dei Papiri Greci e Latini in Egitto. Papiri Greci e Latini.* Firenze vol. IV, V, 1917; VI, 1920.

P. TEBT.—*The Tebtunis Papyri*, Part I ed. by B. P. Grenfell, A. Hunt, J. A. Smyly, London, 1902; Part II ed. by B. P. Grenfell, A. Hunt, J. Goodspeed, London, 1907.

P.Z.—*Selected Papyri from the Archives of Zenon* by C. C. Edgar, *Annales du Service des Antiquités de l'Egypte* XVIII, p. 159 ff., 225 ff.; XIX, p. 13 ff., 81 ff.; XX, p. 19 ff., 181 ff.; XXI, p. 89 ff.

ROSTOWZEW, STUDIEN—*Studien zur Geschichte des Römischen Kolonates* von M. Rostowzew, Erstes Beiheft zum Archiv für Papyrusforschung, Leipzig und Berlin, 1910.

SCHUBART, EINFÜHRUNG—W. Schubart, *Einführung in die Papyruskunde*, Berlin, 1918.

WILCKEN CHREST. and WILCKEN GRUNDZ.—L. Mitteis und U. Wilcken, *Grundzüge und Chrestomathie der Papyruskunde* I, 1 (Grundzüge); I, 2 (Chrestomathie), Leipzig, 1912.

DESCRIPTION OF PLATES

I. P. Lille 1, recto. Ghoran. Om. 16 cent. xom. 31 cent. Year 27. Map and device of the irrigation work on the estate of Apollonius—Frontispiece.

II. P.Z. 22. Philadelphia. Om. 245 mill. xom. 10 cent. Year 29. Letter from Zenon to Panakestor—p. 39.

III. P.Z. 27. Philadelphia. Om. 19 cent. xom. 34 cent. Year 30. Letter from Apollonius to Zenon—p. 49.

I. INTRODUCTORY

Of the Greek papyri from Egypt the Ptolemaic documents form only a small portion, and among them are relatively few of the third century, i. e. of the first period of the Greek domination in Egypt. Most of the Greek documents bought and excavated in Egypt, as is well known, belong to the Roman period, to the first three centuries A.D. Moreover the early Greek papyri of Egypt are mostly fragmentary and in a bad state of preservation, having been extracted for the most part from the cartonnages of mummies found in Greek cemeteries of the Ptolemaic period.[2]

Most of the early Ptolemaic papyri are found in the Fayum. Such are the valuable documents collected by Petrie at Gurob and published by Mahaffy and Smyly in the three volumes of the Petrie Papyri.[2] Another series was collected by Jouguet and Lefebvre in the south-west corner of the Fayum, in the cemeteries near the village of Magdola.[3] In the Fayum probably was found the largest papyrus of the early Ptolemaic time, the *νόμοι τελωνικοὶ* of Ptolemy Philadelphus, his "Revenue Laws," published by Grenfell.[4] Some interesting early Ptolemaic documents were also extracted from the cemetery of Tebtunis in the southern part of the Fayum and will shortly be published by Grenfell and Hunt in the third volume of the Tebtunis Papyri.

But there are many and valuable documents of the same period which do not belong to the Fayum, e.g. the Dikaiomata of the time of Philadelphus published by the Graeca Halensis,[5]

[1] On the finds of Papyri in general, see the two best introductions to the study of the papyri, L. Mitteis and U. Wilcken, *Grundzüge und Chrestomathie der Papyruskunde* (Leipzig, 1912), and W. Schubart, *Einführung in die Papyruskunde* (Berlin, 1918).

[2] J. P. Mahaffy and J. G. Smyly, *The Flinders Petrie Papyri*, 3 vols. (Dublin, 1891-1905).

[3] P. Jouguet, P. Collart, J. Lesquier, M. Xoual, *Papyrus grecs*, 2 vols. (Paris, 1907-1912); the second volume contains the papyri of Magdola.

[4] B. P. Grenfell, *The Revenue Laws of Ptolemy Philadelphus* (Oxford, 1896).

[5] *Dikaiomata, Auszüge aus Alexandrinischen Gesetzen und Verordnungen*, herausg. von der *Graeca Halensis* (Berlin, 1913).

the papyri of Elephantine in Upper Egypt published by Rubensohn,[6] and those of Hibeh published by Grenfell and Hunt.[7]

The majority of these papyri are, as I have already pointed out, fragmentary, badly preserved and very difficult to read. But among them we have some large and comparatively well preserved documents of the greatest historical importance; also several series of letters and documents, addressed to the same person, which probably belonged to a larger body of either private or official writings. Among those of the first group I should name the already mentioned Revenue Laws, the Dikaiomata, and an unpublished document of the third century found in Tebtunis, instructions given by the dioeketes (Minister of finances) of Euergetes I to an oeconomus (Secretary of finances) of the Fayum (the Arsinoite nome). To the second group belongs for example the correspondence of the engineers of Ptolemy Philadelphus and of Ptolemy Euergetes, who worked in the Fayum, and created by their efforts the flourishing agricultural district,—the Arsinoite nome, formerly partly desert, partly marshy land. Their names were Kleon and Theodorus. The documents of their archives were found by Petrie at Gurob. Another series of connected documents is the find of Magdola, scores of petitions addressed to the military governor of the Fayum, the strategus. They formed probably for a while a part of the archives of the governor at the capital of the Fayum, Crocodilopolis, and later on were sold to some fabricant of cartonnages who furnished the whole nome with his products. Fragments of such extensive groups are found everywhere among the documents of the early Ptolemaic period, sometimes only two or three letters, sometimes a larger group like some groups of the papyri of Gurob, Hibeh and Elephantine.

The importance of the early Ptolemaic documents is enormous. During the third century B.C. the Ptolemies, especially the two first, Ptolemy Soter (the Saviour) and Philadelphus

[6] O. Rubensohn, *Elephantine Papyri* (Berlin, 1907).

[7] B. Grenfell and A. S. Hunt, *The Hibeh Papyri* (London, 1906); cf. G. Plaumann, *Griechische Papyri der Sammlung Gradenwitz* (*Sitz.-Ber. der Heidelberger Akademie der Wissenschaften*, 1914, Lief. 15).

(loving his sister), carried out a work of first rate importance not only for their own land, Egypt, but for the ancient world in general. In Egypt they met with multisecular traditions, with an organization of the political, social and economic life which had gradually grown out of the special conditions presented by this peculiar land of Egypt. This ancient native organization of Egypt, built up by the most creative dynasties of the Ancient, Middle and New Egypt, was of course shattered by the long years of foreign domination, interrupted by national revolutions and by temporary reëstablishments of a national monarchy, changes preceded and followed by years of struggle and of anarchy. Only partial restoration occurred in the periods of comparative quiet, so that Egypt at the time of Alexander and of his Egyptian expedition was no more a flourishing, well organized state as it had been before the Assyrian and Persian conquest. Its agriculture suffered from years and years of irregular work on the banks and canals,—a question of life and death for Egypt; its commerce was almost entirely in the hands of foreigners both Greeks and Phoenicians; its industry was to a great extent monopolized by the temples and by the clergy, dominant in the political, social and economic life of the country.

The first Ptolemies, if they wanted to make Egypt the centre of a mighty State which would be able to compete with such large and rich monarchies as Syria, the heir of the Persian Empire, and Macedon, the new ruler of the Greek world on the mainland, were faced with the necessity both of restoring the economic life of the country and of consolidating it by means of a good, properly organized administration. A mere restoration of the old administration was of course impossible. With the Ptolemies a new element came into the country, the Greeks. They were the conquerors and on their strength was based the might and power of the Ptolemies. They brought with them their own customs and habits, their own needs, and they claimed the right to be or to become the dominant class in Egypt. On the other hand the organization of the native element was far from perfect. Egypt at the time of Alexander's conquest was no more the centralized and highly developed bureaucratic and autocratic state of the Pharaohs of the

Eighteenth Dynasty. Feudal elements during the periods of Assyrian, Babylonian and Persian domination had won one victory after another over the idea of centralization. And Egypt of the fourth century B.C., as far as we can judge, was a land of many almost independent temple and feudal territories ruled by the highest clergy and by some feudal lords for their own profit. Any restoration of order and prosperity in Egypt meant first of all the elimination of these elements.

Thus the task of the Ptolemies was in no way an easy one. And the lines which they would take would be decisive for the whole future of Egypt, both as a separate and independent state and as a member of the then established balance of power in the Mediterranean.

The history of Egypt during the last three centuries B.C. shows that the first Ptolemies did succeed in forming a strong and well organized state. They were dominant in the Hellenistic world for about a century and they preserved their independence against the renewed attacks of Syria and Macedon in the following century. They were the last among the leading Hellenistic powers to succumb to the world domination of Rome, and the last battle fought by the Orient against the Occident was organized and prepared in Alexandria by the common efforts of Antony and Cleopatra. This shows that Egypt during the Hellenistic period had strong vital forces based on a rational exploitation of the resources of the country. It is therefore highly important to know what were the devices by which the Ptolemies restored to Egypt these vital forces which it seemed to have lost irretrievably.

The early Ptolemaic documents enumerated above give a partial answer to this question. They show how systematic and logically progressive was the work of restoration and reformation of the first Ptolemies in Egypt and how lasting were the foundations laid by them in their reforms. The general lines of this work were retained not only by their successors, the Ptolemies of the second and first centuries B.C., but by the Romans as well. Even in the Byzantine and Arabic period some of the remains of this thorough work of the first Ptolemies lived on.

I cannot deal with this subject at length. The reader will find my ideas on this topic explained in my article on Ptolemaic

Egypt in the *Journal of Egyptian Archaeology* and in my book on the Hellenistic world and Rome now in course of publication.[8]

But I must emphasize the fact that if the main lines of the reform work of the Ptolemies may be traced with some degree of accuracy, many and highly important points remain still dark and therefore hotly debated. One of the most important and of the darkest questions is that of the part played in the economic life of Egypt by the Greeks and other foreigners, of the relation of the new-comers to the ancient population of Egypt, of the importance of both elements in the restoration of the economic strength of the new Greco-Egyptian state.

This is just the point which seems to be to a certain degree elucidated by a recent find made in Egypt during the war. I mean the discovery of a new and exceptionally rich series of documents of the third century B.C. made in 1915 at Kharabet el Gerza in the Fayum, the site of the ancient village of Philadelphia. The new find forms a unit. All the Greek papyri which belong to it were filed and docketed by a certain Zenon and formed therefore a part of his correspondence, his private archives. The discovery of these papyri was accidental. The discoverers were Egyptian peasants, fellahin digging for sebakh (the fertilizing earth of the ancient ruins used regularly by the Egyptian peasants for fertilizing their fields).[9]

As usual the whole lot of documents (how many they originally were, nobody knows) was acquired by dealers, specialists in the papyri-trade, was divided by them into many parts and

[8] M. Rostovtzeff, "The Foundations of Social and Economic Life in Egypt in Hellenistic Times," *Journal of Egyptian Archaeology*, VI, 3 (1920), 161 ff.

[9] We have no evidence about the conditions under which the find was made as the dealers were not willing to disclose their source of supply. What is known is related by C. C. Edgar, "On the Dating of Early Ptolemaic Papyri," *Annales du Service des Antiquités de l'Egypte*, XVII (1917) 208; cf. the introductions to his subsequent articles in the *Annales* and the prefaces of Vitelli in P.S.I. (see below, note 10). There is every probability for the belief that the papyri were found in the ruins of the house which formerly belonged to Zenon, probably in the cellars. Another possibility is that they were thrown out of the house at once and were preserved for centuries in one of the heaps of refuses.

these parts were sold to different purchasers, gradually, one lot after another. A large part came through the late Gentilli to Florence, another was acquired by the Museum of Cairo which is still buying up one lot after another; two important lots were acquired by the British Museum, and one by the Library in Manchester. One papyrus of the same series came to Hamburg. Some offered for sale to different institutions were not purchased, and may still remain in the hands of the dealers or may have been sold to one or another private collector. It is indeed urgent that everybody who possesses papyri of the correspondence of Zenon should notify the editors of the larger lots and not hide the documents for years and years, as many collectors of papyri sometimes do.

War time was not very favourable for the publication of papyri, nor is the time we are living in any better. Nevertheless the energy of Vitelli and his collaborators in Italy[10] and of Edgar in Cairo[11] has resulted in the publication of most of the best preserved documents of the Italian and Cairo collections, and Bell and Grenfell will do the same for the documents which are now in England. Thanks to the kindness of Bell and Grenfell I have seen their copies of the English part of the Zenon archives and am acquainted with their content. The papyrus which came to Hamburg was published by P. Meyer.[12]

Thus we have already a body of more than three hundred and fifty documents published and partly explained. Many new ones will soon appear in the next volume of the Papyri of the British Museum and in the next articles of Edgar. They will certainly bring to light valuable new information on the

[10] *Pubblicazioni della Società Italiana per la ricerca dei papiri greci e latini in Egitto. Papiri Greci e Latini*, IV, V, and VI (Firenze, 1917, 1920). Quoted as P.S.I. with the number of the papyrus, without the number of the volume.

[11] C. C. Edgar, "Selected Papyri from the Archives of Zenon," *Annales du Service des Ant. de l'Egypte*, XVIII and XIX (pt. I, nos. 1-10, vol. XVIII p. 159 ff.; pt. II, nos. 11-21, vol. XVIII, p. 225 ff.; pt. III, nos. 22-36, vol. XIX, p. 13 ff.; pt. IV, nos. 37-48, vol. XIX, p. 81 ff.). Quoted P. Z. with the number of the papyrus or pt. I, etc., and the page. The papyri from Zenon's archives now in London are quoted by the Inventory number of each.

[12] P. M. Meyer, *Griechische Papyrusurkunden der Hamburger Stadtbibliothek*, 2 parts (Leipzig, 1911 and 1913), no. 27.

affairs of Zenon, some fragments will fit into already published documents and make it easier to understand them. Many questions of chronology and of details will certainly arise from the new evidence. Under such conditions it may seem unwise to deal at present with the correspondence as a whole from the historical point of view, or to try, before the series is complete, to point out its scientific value and its enormous importance for our knowledge of the early Ptolemaic Egypt.

Nevertheless I have decided to take up this question at once and to publish the results of my investigations. My reasons for doing so are as follows. We possess already sufficient evidence for forming a conception of the correspondence as a whole, and the conception which I have formed by means of a close study of the published documents is very much different from that which was formed by the editors of the documents. I should like therefore to make my conception accessible to the editors of the new documents, subject it to their criticism and thus make their work of publishing the new evidence easier, since the reading of the new pieces of evidence and commenting upon them depends very much for its value on the right understanding of the series as a whole. Furthermore I am not afraid of committing mistakes. I should be very glad to correct my statements in the light of any new evidence and to modify my opinions. But for the successful progress of the work of editing and commenting on the new papyri in general it is urgent that the new documents be compared with the old ones and that this new evidence be assigned its place in the already known series of the same time and the same place. We shall see how close is the connection of the Zenon papyri with those of the Petrie lot on the one hand and with the Revenue Laws on the other. It will appear also that many of the Lille papyri explain and are explained in their turn by the Zenon papyri. I therefore do not regard my labor in compiling this article as a waste of time. Science progresses step by step and nobody should be afraid of committing mistakes in dealing with new and unexplained material, assuming that his study of this material is thorough, animated by a sincere desire to find the truth, and founded on a well established general conception.

II. PHILADELPHIA

The place where the Zenon correspondence was found is well known to the papyrologists and to the dealers in papyri. Philadelphia (Gerza near the modern Rubbayat), like Karanis and Soknopaiu Nesos and some other sites in the Fayum, was one of the first places to be attacked by the sebakh diggers and papyri plunderers in the eighties of the last century. Many papyri in a good state of preservation found in the ruins of Philadelphia were sold in Europe to the Museums of Berlin, London, and Geneva.[13] Most of them are published in the papyri publications of Berlin, London and Geneva. Nobody tried to collect them all and to give a picture of Philadelphia and its economic development. The task is not an easy one as the papyri from Philadelphia are but few in number and only a part of them mention the name of the village. New evidence about the earlier times of Philadelphia was brought by the Petrie papyri and some Lille papyri extracted from the cartonnages of Ptolemaic mummies. Most of the Petrie and the Lille papyri probably belong to the archives of Crocodilopolis, the capital of the Arsinoite nome, and some of them mention Philadelphia among the other villages of the Fayum.

The systematic excavations in the Fayum which were begun by Petrie, developed in the nineties of the last century by Grenfell, Hunt and Hogarth, and later on by the French scholars Jouguet and Lefebvre and by the administration of the Cairo Museum, never touched the site and the ruins of Philadelphia. In 1900 Grenfell and Hunt tried to excavate the necropolis of Philadelphia but soon became discouraged by the bad state of this cemetery which had been repeatedly plundered by the fellahin and papyri dealers.[14] The ruins of the city itself seemed to be entirely exhausted and not worth the expenditure on them of time and money.

[13] Grenfell and Hunt, *Fayum Towns and their Papyri*, Introduction, p. 11; Grenfell and Hunt, *Tebtunis Papyri*, II, 345; *Archaeological Records of the Egypt Exploration Fund*, 1900-1901, p. 6 ff.

[14] Grenfell and Hunt, *Arch. Rep., loc. cit.*

Nevertheless the activity of the commercial excavators at Philadelphia did not cease. Some papyri from Philadelphia appeared again lately on the market, thus testifying to a renewed activity of the sebakh diggers in Gerza. Some of them were bought by the Library of Hamburg and published recently by P. Meyer, some by Mrs. Rylands. Among the Hamburg lot there was already one of the Zenon papyri. No doubt the Zenon find was one of the results of the activity of papyri robbers.

No wonder therefore if our knowledge of the destinies of Philadelphia is scanty and fragmentary! The name of Philadelphia shows that the village belonged to those which were founded under the second Ptolemy as the result of his work of drainage and irrigation in the marshes and sandy land on the shores of Lake Moeris. Philadelphia was one of the many creations of the Ptolemies in the Fayum. We know how extensive and successful this work of the Ptolemies was. In the list of the villages of the Fayum which already existed there in the early Ptolemaic epoch and which are mentioned in the Greek papyri of the Fayum, the list compiled with great care by Grenfell in P. Tebt. II, there are found 114 names of larger and smaller settlements (I take the villages only and leave aside the smaller places: *τόποι, ἐποίκια, χωρία* etc.). Of these 114 villages 66 have Greek names and only 48 Egyptian. But even the villages with Egyptian names are in no way altogether pre-Ptolemaic. Most of them as well as the villages with Greek names are creations of the Ptolemies. It is shown by the fact that many, perhaps most of them, bear the same names as some larger and smaller cities in the Delta and in Middle Egypt. In the Fayum as in the United States of America, another great land of colonization, we meet with village after village homonymous to celebrated cities, in this case cities of Lower and Middle Egypt with their partly Hellenized, partly native names: *Ἀπόλλωνος πόλις κώμη, Ἑρμοῦ πόλις κώμη, Ἡλίου πόλις κώμη, Κυνῶν πόλις κώμη, Λητοῦς πόλις κώμη, Μέμφις κώμη, Νείλου πόλις κώμη* on the one hand and *Ἀθρῖβις, Βούβαστος, Βουσῖρις, Μένδης, Ὀξύρυγχα, Σεβεννῦτος, Τᾶνις, Φαρβαῖθος*, etc., on the other. No doubt these names recall the names of the places whence the new settlers came to the Fayum, perhaps of the nomes to which they

formerly belonged, as the recorded names are names of the capitals of the nomes of the Delta and of Middle Egypt. Other purely Egyptian names of the villages of the Fayum may have been borrowed in the same way from other less conspicuous places of Egypt. But this point requires further investigation. The only difference between the settlements with Greek and those with Egyptian names is probably this, that the former had a Greek majority among the new settlers, the latter an Egyptian one, i. e., that the former were mostly settlements of Greek soldiers, the latter of Egyptian crown-peasants, the *βασιλικοὶ γεωργοί*. We shall retain this fact as one which is very characteristic of the history of the colonization of the Fayum of which I shall speak more fully later on.

Among the new settlements in the Fayum with Greek and native names Philadelphia occupies a rather exceptional position. It belongs to the small class of Greek settlements with names derived from the names of the rulers of Egypt,—the Ptolemies. It seems strange that in a region settled mostly by mercenary soldiers dynastic names form rather an exception. But the fact in itself is beyond any doubt. In the whole Fayum we have only fourteen *κῶμαι* with dynastic names out of 66 with Greek names, namely two *Βερενικίς*, two *Ἀρσινόη*, one *Εὐεργετίς*, one *Θεαδέλφεια*, five *Πτολεμαίς*, one *Φιλωτερίς*, one *Φιλοπάτωρ* and one *Φιλαδέλφεια*. Much more usual is it to give to the villages names derived either from the names of some gods (e. g., *Βακχιάς*, *Ἡφαιστιάς*—disguised Egyptian gods?) or from the names of persons not connected with the royal house, some of whom seem to have belonged to the class of higher officials of Egypt in general and the Fayum in particular. It is very likely, e. g., that *Ἀπολλωνιὰς* was named after the dioeketes Apollonius, the *Θεογένους κώμη* after the dioeketes of Euergetes I, *Μητροδώρου κώμη* after the oeconomus of the Fayum of the same time, and some other *κῶμαι* after the *νομάρχαι* of the Fayum. We shall come back to this special point later on.

The rarity of the dynastic names can be explained only by the supposition that it was not free to the new settlers to take a dynastic name without special permission and that a dynastic name implied a kind of patronage of the King and the Queen, perhaps even the institution of a royal cult by the settlers.

We shall see later on that such special connection with the royal house very probably existed in the case of Philadelphia.

Beside the mere fact of its foundation under Ptolemy Philadelphus we knew very little about the early history of Philadelphia before the discovery of Zenon's correspondence. Some Petrie papyri testify that important works were carried out in the neighborhood of Philadelphia by the royal engineers Kleon and Theodorus,[15] that the place was surrounded by settlements with Egyptian names, probably colonies inhabited by royal peasants as they bear names derived from some famous places in the Delta: Bubastus, Tanis, Patsonthis,[16] and that it soon became an important centre of wine production.[17] Under Euergetes I Philadelphia was the *chef-lieu* of a toparchy, the residence of a toparch.[18] Under Philopator we meet with a wholesale merchant, resident in Philadelphia who has a large herd of sheep.[19] At the same time it had a comparatively large population of soldiers serving in the cavalry.[20] Comparatively large sums paid by the inhabitants of Philadelphia for the tax on internal commerce (ἐπώνιον)[21] and for the tax on νῖτρον[22] may allow us to suppose that the community was thriving and had developed a certain amount of commercial and industrial activity (the weaving industry, for example, the νῖτρον being used for washing cloth).

The Roman documents add but few new features to this meagre picture. Under the Roman emperors Philadelphia still remained an important centre of vintage and gardening. The culture of olive trees seemed to prosper there, as we hear often of ἐλαιῶνες and ἐλαιωνοπαράδεισοι and palm plantations

[15] P. Petrie II, 4, 4-III, 42, 6, irrigation of the region ἀπὸ Φιλαδελφείας ἕως Πατσώνθεως.

[16] P. Petrie II, 46 (b)-III, 57 (a) and (b); III, 105; 117 (j); 117 (k); II, 28-III, 66 (a).

[17] P. Petrie II, 46 (b)-III, 57 (a) and (b).

[18] P. Lille 3, col. IV, l. 73.

[19] B. G. U. 1012 (170 B. C.?).

[20] P. Petrie III, 105.

[21] P. Petrie III, 117 (j): ἐπώνιον is the tax on the sale of products in the market.

[22] P. Petrie III, 117 (k).

owned by the inhabitants of the village.[23] Pasture land and cattle breeding seem to have played an important part in the economic life of the settlement.[24]

Along with Karanis, Bacchias and Soknopaiu Nesos and other localities situated on the verge of the desert and connected with Memphis by a caravan road, Philadelphia was one of the places where custom-duties on import and export were levied by the finance administration of Egypt. But the scanty amount of custom-duties receipts discovered at Philadelphia in comparison with those discovered at Soknopaiu Nesos show that Philadelphia was not situated on the main road of traffic.[25] It is possible to infer from one of the Zenon papyri that this customs station at Philadelphia was created as early as the foundation of the village itself (see P. Z. 46, year 35 of Philadelphus, cf. *ibid.*, V, p. 21).

A peculiar feature in the history of Philadelphia, as was shown recently by the Hamburg and Ryland papyri, part of which belong to the first century A. D. (most of the Roman papyri belong to a later epoch—the third and fourth centuries A. D.), is the fact that a large part of the territory of this village after the Roman conquest came into the hands of large landowners either members of the family or favorites of Augustus and his successors. The large estates (*οὐσίαι*) e. g. those of Germanicus, Maecenas and Seneca, included large parcels of land in the territory of Philadelphia. All this land was confiscated by Vespasian and formed a special class of the state or imperial land in general (*γῆ οὐσιακή*) exploited by a special class of crown peasants, the *γεωργοὶ οὐσιακοί*.[26]

[23] See, e. g., P. Hamb. 5 (89 A. D.); B. G. U. 603, 14 (168 A. D.), cf. 604; P. Lond. III, p. 69 and p. 44 e (173 A.D.); P. Hamb. 40-53 (213-219 A. D.). These plantations still existed in the fourth century A. D., B. G. U., 519, l. 13; 456; 1049, cf. 1022 which testifies to the existence of oil factories in Philadelphia.

[24] P. Hamb. 40-53 (213-219 A. D.).

[25] See Wilcken, *Grundzüge*, p. 191.

[26] P. Hamb. 3 (74 A. D.); P. Ryl. II, 383 (second century A. D.); P. Gen. 42, 16 (224 A. D.): *βασιλικοὶ/καὶ οὐσιακοὶ καὶ προσοδικοὶ [γεωργ]οὶ κώμης Φιλαδελφείας*. Cf. M. Rostowzew, *Studien zur Geschichte des Römischen Kolonats* (Leipzig, 1910) pp. 119 ff., 218.

Along with this class of crown peasants other parts of the Philadelphian land were farmed by δημόσιοι and βασιλικοὶ γεωργοί, a fact which testifies that an important part of the territory remained in the hands of the state and was rented by the state directly. But along with this state land the same territory included many parcels, mostly vineyards and gardens, owned by private persons among whom we notice some descendants of the Ptolemaic military settlers and many Roman veterans, the latter mostly well to do landowners.[27]

Like most of the villages of the Fayum, especially those which were situated on the border of the desert, Philadelphia did not prosper for very long. A constant and progressive decay of the economic life is felt in Philadelphia as in many other villages of the Fayum as early as the second century A. D. It is explained probably by the negligence of the administration to maintain the dikes and canals in good order and by gradual impoverishment of the population overburdened by taxes and liturgies, a process which is characteristic of most of the cities and villages in Egypt from the second century A. D. onwards. This process has been repeatedly described and explained by myself and other scholars.[28]

[27] P. Hamb. 5 (89 A. D.) and 40-53 (213-219 A. D.); the last group of documents forms a splendid parallel to the documents which were investigated by W. Westermann in his excellent article, "An Egyptian Farmer,' *University of Wisconsin Studies, Language and Literature*, no. 3, p. 171 ff. The papyri Rylands also brought out a large amount of material which characterizes the agricultural activity of the Roman veterans in the Fayum. One of the most interesting documents, a register of taxes on land, late first century A. D., deals with the territory of Philadelphia and the neighboring villages Tanis and Hephaestias, P. Ryl. II, 202, cf. 386 (second century). The land owned by the veterans belonged mostly to the class of catoecic and cleruchic land and thus was formerly owned by the soldiers of the Ptolemaic army who were deprived of their property for the sake of the Roman veterans. But there are also Greek names in the register mentioned above (cf. P. Ryl. 188), probably those of the descendants of the catoeci and cleruchi of the Ptolemaic period. It is noteworthy that the famous letter of Apion (B. G. U. 423; Wilcken, *Chrest.*, p. 480) was found at Philadelphia. The whole question of veterans as landowners should be investigated anew, even after the treatment of this question by Lesquier, *L'armée romaine d'Egypte* (Paris, 1919). The Greek, and later the Roman character of the population seems thus to be a feature of Philadelphia all through the seven centuries of its existence.

[28] Rostowzew, *Studien*, p. 206 ff.

For Philadelphia this fact is well illustrated by one of the Hamburg papyri of 160 A. D. (no. 35). It is a petition to the governor of the nome from three men and their associates who were entrusted by the governor to προσταθῆναι κώμης Φιλαδελφείας. These are their complaints: "Inasmuch as the arrears of this village are big and we need help bitterly, and most of the heads of the village neglect their duty of collecting taxes, especially the field-guards, we beg you to make an inquiry into the matter and to order a more careful collection of them."

In the third century the situation becomes alarming. The amount of dry land increases steadily. In the fourth century the ruin is almost complete, as is shown by some Geneva papyri which mention a special class of land entirely unproductive booked by the officials under the heading of ἄπορον or ἀπόρων ὀνομάτων,—entirely unproductive land.[29] Very soon the place became completely depopulated and was never settled again. No papyri later than the fourth century A. D. were discovered at Philadelphia. At this time the village was abandoned by its inhabitants and became again a part of the sandy desert as it was before the time of the first Ptolemies and as it remained to the time of the discovery of its papyri by the sebakh diggers.

Such are the scanty data which we possess on the history of Philadelphia. And we must say that in this respect Philadelphia is not an exception. The history of most of the places in the Fayum is the same as far as we know it. And yet this poor picture does not correspond to the truth. Philadelphia had its time of feverish activity, of great plans and projects, of interesting attempts. The accidental discovery of the correspondence of Zenon illuminates this epoch with many minute details and enables us to follow the destinies of this typical place from the very beginning of its development. It is a fascinating study to follow these destinies. It is of course local history, history of a small place which never was connected with the great historical events; but how much light it throws on many historical questions of first importance; how many new data it gives for our appreciation of the Hellenistic period in general;

[29] P. Gen. 66, 67, 69, 70; Wilcken, *Chrest.*, 380, 381. I follow Wilcken in his explanation of the term ἄπορα ὀνόματα, cf. *Nachträge*, p. VII.

and how instructive it is for our conception of the ancient world in general!

But before we take up this subject let me deal first with Zenon, with his career and his relations to the many persons with whom he was connected.

III. ZENON AND APOLLONIUS

The Two Earliest Periods in the Activity of Zenon

The archives of Zenon were found at Philadelphia. But many of the letters kept by Zenon in his archives were not addressed to him in the Fayum. The dates, addresses, dockets and contents of many letters show that they were written before Zenon settled down at Philadelphia (the second half of the year 29 of Philadelphus), at a period when he resided partly in Alexandria, partly in the Syrian provinces of the Ptolemies. It is evident that he brought these letters with him to Philadelphia and kept them in his archives for one reason or another.

This fact explains the paucity of our evidence about Zenon and his affairs before his activity in Philadelphia. Zenon travelled very much during the first periods of his life. No wonder if during these travels he did not keep all the letters which he received. Most of them naturally disappeared and what remained were not always the most important. Such is the impression left on us by the remains of the correspondence of Zenon before his coming to Philadelphia. The further we go back from this date the scantier the remains. We can hardly expect that this impression would be very much modified by the publication of the other parts of Zenon's archives. Zenon might have kept his archives in order; it is even possible that the letters were found arranged according to some system. But the order in which the letters fell into the hands of the different purchasers shows that this order was not observed by the diggers, that in selling the documents the dealers mixed them up hopelessly.

A mere glance at the correspondence of Zenon shows that during all the time of his active intercourse with his correspondents he was in close and uninterrupted relations with his chief, Apollonius the dioeketes of King Ptolemy II Philadelphus, i.e., the manager in the name of the king of the economic life of Egypt. Before the discovery of Zenon's papyri we knew but little of Apollonius and his career. He was first mentioned in the year 27 of Ptolemy Philadelphus, and the

last mention of his name belonged to the year 34. Zenon's correspondence allows us to define more accurately both the time of his appointment to the duty of dioeketes and the time when he left this office.[30]

P.S.I. 324 and 325 (cf. 322 note 1) show that Apollonius was already dioeketes in the year 25 of Philadelphus. On the other hand in the R.L. of Philadelphus which were published in the year 27 probably by Apollonius, we have in the section on the apomoira as an appendix to the *πρόγραμμα* and *διάγραμμα* of this year, two earlier documents dated in the year 23 by which two declarations preliminary to the collection of apomoira were prescribed: an inventory of the persons who had already paid a part of their yield of the vineyards and gardens to the temples, and an inventory of all the vineyards and gardens. These inventories were ordered to be delivered to those "who work under Satyrus" (*τοῖς παρὰ Σατύρου πραγματευομένοις*), and the first one moreover "to the accountants who work under Dionysodorus" (*τοῖς παρὰ Διονυσοδώρου τεταγμένοις ἐγλογισταῖς*, R.L. col. 36, 10 and 37, 11-12). From P.Z. 44 (year 34) we know that Dionysodorus was in this year the chief subordinate of Apollonius (cf. P.Z. 14, 8, year 29), the chief eglogist in Alexandria. There is no doubt therefore that Satyrus and not Apollonius was dioeketes in the year 23. As in the year 25 Apollonius was already dioeketes, it is clear that he was appointed to this office between the two dates, probably in the year 24.

When did he leave this office? He was still dioeketes in the last year of Philadelphus (P.S.I. 383), but no longer in the first years of Euergetes. This I deduce from P. Petrie II, 42a—III, 43, 1. This document is a notification by the author of the document to all the officials of the Fayum telling them that

[30] Almost nothing has been written on Apollonius. His name does not appear in the Indices of Wilcken's and Schubart's introductions to papyrology. Even the careful book of Bouché-Leclercq, *Histoire des Lagides* (Paris 1903-1907), mentions his name only once (vol. III, p. 266 cf. III p. 381, note 2 and IV p. 342) in speaking of the Revenue Laws. The papyri where Apollonius is mentioned have been quoted by many scholars but mostly in the notes; he seemed unworthy of mention in the text. See, e. g., Preisigke, *Klio*, VII, p. 241, note; P. Hib. 44, note 3; *Dikaiomata*, p. 260; P.S.I. 383, note 12 (Vitelli).

instead of Kleon, Theodorus had been appointed by him chief engineer of the nome. Kleon occupied in the nome a very high position and was subordinate to the dioeketes only, by whom he was appointed, if not by the King himself. Now the document in question was sent out not by Apollonius, who was still dioeketes in the last year of Philadelphus, but by Kleandrus, no doubt the dioeketes at the time when the letter was written. The letter of course is not dated. But many documents show (P. Petrie III, 43, 2 ff.) that in the second year of Euergetes Theodorus is the acting chief engineer of the Fayum.[31] Thus he was appointed not later than in the second year of Euergetes, probably in his first year. It is only natural that the new King wanted to have a new manager of his finances, a man personally devoted to him. We may find a corroboration of this hypothesis of mine in P. Petrie III, 53,—a badly preserved private letter. This letter twice mentions the King, once a man called Diotimus, who, as we know, was one of the local dioeketae under Apollonius and remained hypodioeketes under Euergetes for some time (see Appendix I), and once a man of the name of Kleandrus. With Diotimus the writer of the letter was on good terms, but Kleandrus is named in a connotation which seems to imply a different attitude of our man towards him although the passage is unfortunately very fragmentary. The author of the letter is in great anxiety. His main fear is to lose

[31] P. Lond. Inv. 2089 shows that Theodorus fulfilled the duties of chief engineer of the Arsinoite as early as the year 36 of Philadelphus. In his letter to 'A.[. . .]μίας he asked for a salary not less than the salary received by Kleon and promised in this case to do everything possible for the dioeketes and for the man to whom the letter is addressed. If therefore he was appointed as early as the year 36 as the chief engineer of the Arsinoite, the letter of Kleandrus was written for the purpose of reappointing him, after Kleandrus had taken the office of Apollonius; or rather for the purpose of informing the officials of the nome that Theodorus had been maintained by him in his commission of the chief engineer of the nome. But it is possible also that Theodorus' commission in the year 36 was only that of a sub-engineer. In this case the letter (P. Lond. Inv. 2089) shows that as such he claimed a salary from the estate of Apollonius equivalent to what was given to Kleon, probably in a private way, as a kind of bribe. Theodorus may have received the special commission to care for the dykes which were built in the estate of Apollonius. Be that as it may, the new document changes nothing in my statement about the career of Apollonius.

his κτῆμα. Was he not one of the higher officials, a subordinate of Kleandrus and Diotimus who has lost his commission contemporaneously with Apollonius?

We may safely assume therefore that Apollonius who was appointed about the year 24 remained in the office as long as the rule and life of Philadelphus lasted, enjoying during his time the full confidence of his King and being his chief collaborator for some 15 years. Under Euergetes the conditions were different. In the year 5 the post of the dioeketes is occupied no longer by Kleandrus but by Theogenes (P. Petrie II, 38 (b)—III, 53 (e); cf. P. Lille 4, 5; P.S.I. VI, p. 70, note 1), in the year 10 the dioeketes is Eutychus (P. Petrie II, 15, 2; III, 43, 7, cf. Hib. 133), in the year 18, Chrysippus (P. Petrie III, 5 (l and m), cf. P. Grenfell II, 14 (b) 2) and our information is probably far from complete. It is possible that in these few years there were more than three dioeketae. This comparison between the two reigns, that of Philadelphus and that of Euergetes, is noteworthy since it shows the great influence of Apollonius with the King and their close friendship.[32] In the letter of Philon to Zenon of the year 34 (P.Z. 44) there is of course a remark which could let us suppose that temporarily at least Apollonius had lost his appointment. Philon adds to his letter "you must know that Apollonius took over all the matters in Alexandria and that Dionysodorus acts as the eglogistes," but this postscript implies no more than a temporary but long absence of both the individuals mentioned from Alexandria during which time somebody else acted as dioeketes and eglogistes.

Of the nature of the previous activity of Apollonius, we are ignorant. But we may safely suppose that if he was in the service of Philadelphus before he was appointed dioeketes and was not invited by Philadelphus from abroad (we know of many Athenian refugees in the service of Philadelphus occupying influential positions, see Ferguson, *Hellenistic Athens*, 188, note 1, cf. 197 and Edgar, P.Z. VII, p. 91, note 1), he prob-

[32] This influence is illustrated by the last section of the *Dikaiomata*, l. 158 ff., p. 260 ff.,—a letter of Apollonius to Zoilus about the privilege of not being subject to the salt tax, (ἁλική), granted to some persons of liberal professions. The tone of the letter is noteworthy. It seems as if it is not Apollonius but the King who speaks.

ably served in the Ptolemaic army. At that time there was no sharp distinction between the military and civil career and the staff of the king bore an almost purely military character, just as in the time of the early Roman principate which was as personal and as military as was the Hellenistic kingship of the first two generations. The only difference was that the "house" or the "court," to use either the Greek or the Oriental word for it, of the Hellenistic kings was never filled to such an extent with slaves and freedmen, as was that of the early principes, heirs in this respect of the Republican magnates with their husbandry based on slavery.

One word more about the circumstances in which the career of Apollonius ended. New light is thrown on this question by an interesting letter of Zenon's correspondence (P. Lond. Inv. 2087, no date). A certain Sosicrates (cf. P.S.I. 614) writes to Zenon and gives him the order to arrest the slaves who formerly belonged to the ex-dioeketes Apollonius and now belong to a certain Paideas (1. 2: *τῶν πρότερον ὄντων Ἀπολλωνίου τοῦ [[διοι]] γενομένου διοικητοῦ νῦν δ'ὄντων Παιδέου*). There are four slaves: Pindarus from Lycia, and Philonides, alias Beltenuris, and moreover two who formerly belonged to Alexander, who had been a hostage probably at Alexandria. This singular order, its appearance of haste, the fact that the writer cancelled *τοῦ διοικητοῦ* and wrote instead *τοῦ γενομένου διοικητοῦ*, that Zenon is still in Philadelphia managing the estate, furthermore that many slaves of Apollonius having fled from Alexandria are supposed to be in Philadelphia,—all this taken together shows that a catastrophe happened in the household of Apollonius at Alexandria after his dismissal. I can explain it in one way only: that Apollonius was not only dismissed but that his property was confiscated and some of his slaves came into the hands of Paideas, four of whom used this opportunity for escaping. The official and perhaps the physical life of Apollonius ended therefore with a catastrophe, King Euergetes having deprived him of his commission and his fortune.

Interesting also is the mention in the same document of some slaves who had come into the hands of Apollonius from the property of a certain Alexander residing at Alexandria as a hostage. A hostage who possessed many slaves,—one a Baby-

lonian, a bath-rubber by profession, another a Median coachman, could not be an ordinary man. He must have been a great personage, probably of royal origin. I would suggest that the man in question was Alexander, the son of Lysimachus and his Odrysian wife; after the death of Lysimachus he remained in Asia (see App. Syr. 64; Bouché-Leclercq, *Histoire des Lagides*, I, 149, 4). It has always been a puzzle to me how this man could remain quiet in the troubled times after the death of Lysimachus and after the seizure of power by Ptolemaeus Keraunus. We may now suppose that Ptolemaeus Keraunus seized Alexander and having concluded an arrangement with Philadelphus delivered Alexander to him. Alexander was then kept at Alexandria as a hostage in the same way as Demetrius Poliorketes had been kept in Syria. Philadelphus had an interest in having the man in his power, first to secure the throne of Asia and Macedon for Keraunus, thus eliminating a rival to Euergetes, and secondly as a good weapon against Keraunus. Alexander probably died very soon at Alexandria when his possessions came into the hands of Philadelphus and his courtiers.

For an understanding of the correspondence of Zenon, his position, the affairs which he managed and his personal relations with the dioeketes it is necessary to have a clear notion of what the office of the dioeketes was. As the word "dioeketes" shows, this official was the manager of the economic affairs of the king and therefore of the kingdom. We must not forget that the rule of the Hellenistic Kings was a purely personal one. They were not appointed by anybody nor even elected by the population. As generals of Alexander they were his satraps and they retained their satrapies because of their military strength and their personal influence on the troops, the deification coming much later. This personal régime brought with it as a logical consequence the idea that the kingdom as such was the personal property of the Kings, acquired by force of arms. This idea was almost exactly identical with the idea prevailing in Egypt as regards the relations between State and King with this as the only difference: the Egyptian royalty was based on religious ideas and had a religious legitimation which of course the Hellenistic Kings were forced to borrow from their predecessors. Egypt was thus the private property of the Ptole-

mies, their estate, so to say, and the dioeketes was the manager of this estate.

In the close collaboration of the King and his minister it is not easy to make out what belongs to the King and what to his minister, as everything which touched the economic management of the State passed through the hands of the dioeketes. For understanding therefore the atmosphere in which both Apollonius and Zenon lived and worked we must first realize the purely personal character of the office held by Apollonius, and on the other hand the leading ideas of the King on the economic management of his lands. It is not an easy task to grasp these leading ideas, our information being scanty and fragmentary. Moreover we have more or less good information only for the second half of the reign of Philadelphus and almost none for the first half, not to speak of the times of Soter and Alexander. It is a striking phenomenon that the Greek papyri of the early Ptolemaic time rarely belong to the first 50 or 60 years of the Greek domination. Is this phenomenon accidental? Should we not deduce from this very fact that the Greek bureaucracy whose activity created the Greek archives of the Ptolemies all over the country was itself a creation of the second Ptolemy?

The facts agree perfectly with this assumption. There is every reason to assume that Soter, and Philadelphus in his early years, were rather generals of the late Alexander than kings of Egypt. Both were entirely absorbed in the affairs of Alexander's world-state and took active part in the conduct of world affairs. Of course Soter was the first to claim for himself an independent position in his satrapy, which was Egypt, but nevertheless he never dissociated himself entirely from the affairs of the other generals. The policy of Philadelphus, based on securing for Egypt the vital conditions of the existence of Egypt as a self-sufficient, strong state,[33] was not free from imperialistic tendencies. The Syrian war and the first failures of Ptolemy

[33] See my remarks in the *Journal of Eg. Arch.*, VI, 3 (1920), p. 172. In these remarks I have emphasized too strongly the non-imperialistic ideas of the first Ptolemies. The first Ptolemies certainly had no intention of creating a world State; nevertheless Philadelphus, and after him Euergetes, pursued an imperialistic policy aiming at hegemony on the sea, which of course was a vital question for Egypt.

Philadelphus in carrying out his imperialistic program obliged Philadelphus to realize for the first time that his safety depended completely on Egypt and that his first task was to consolidate the foundation of his power, i.e., to organize Egypt as firmly and as consistently as possible. Hence his energetic activity in Egypt after the first Syrian war and the minute elaboration of the peculiar economic and administrative system characteristic of his time. I do not mean that the main leading ideas were all his, that Alexander and Soter had not previously traced the main outlines, but I am convinced that Philadelphus was the man who shaped these ideas into the Greco-Egyptian forms which permeated the whole administration as we know it from the papyri of his later years. I shall speak of this organization of his later on, in my last chapter, but I wish here to emphasize the point that the fifteen years of Apollonius' term of office were a time of strenuous work, of energetic activity on partly new lines, the main result being the Hellenization of the Egyptian administrative and economic life as far as the outward forms were concerned. The substance of course could not, and was not intended to be changed or even hellenized.

Such then, was the spirit of the time and the atmosphere in which Apollonius, and with him Zenon, worked for fifteen years. Let me now return to the correspondence of Zenon.

For the period of the life of Zenon before the year 25 of Philadelphus we have almost no evidence. The earliest document of the archives of Zenon dates from the year 12 of Philadelphus and is preserved in two copies (P.S.I. 321 and P.Z. 1). This document, a loan contract which does not even mention Zenon, presents no evidence on his affairs and may have come into the hands of Zenon subsequently (cf. P.S.I. VI, p. IX). More interesting is the second earliest document,—a letter addressed to Zenon by a certain Horus, which mentions the year 13 and is dated by Vitelli in the year 14 of Philadelphus (P.S.I. 551); the letter of course may be of a much later date. Horus describes his interviews and his talks with the King concerning a vineyard of his own. One of these interviews took place on a silverpooped light ship (ἡμιόλιον) of the King,—by the way a good illustration of the well known description of the wealth of Philadelphus given by Appian (Prooem. 10),

where Appian mentions 800 gold-prowed and gold-pooped cabin-ships used by Philadelphus for his travels. For the biography of Zenon the letter has some interest as it shows that Zenon was already a member of the court circle; whether or not he was connected with Apollonius at this time will probably be shown by papyri not yet published.

The second period in the life of Zenon begins with the year 25 and lasts through the years 26 and 27. The evidence is fuller but still scanty. For the first time we get information about the personal position of Zenon. He was a Carian Greek, citizen of Kaunus, the son of Agreophon (P.Z. 3, comp. P. Lond. Inv. 2092). Through his wife he had connections in the city of Kalynda. His brother Epharmostus was also in Egypt (P.S.I. 331). Zenon had children: one son, Kleon, is known to us from some letters. Zenon was therefore a resident of one of the foreign provinces of the Ptolemies and of course tried to place as many of his relatives and compatriots as he could in the service of the Ptolemies. It would be of great interest to know what was the mother-country of Apollonius himself.[34]

One of the letters of the year 26 (P.Z. 2) shows Zenon already in relations with Apollonius, and through a letter of the year 27 we ascertain his semi-official title: he is *τῶν περὶ Ἀπολλώνιον* or *ὁ παρ' Ἀπολλωνίου* (P.Z. 3), one of the agents of Apollonius. Such titles are very common in the Greek papyri of this time and denote merely a subordinate position in general: one may be *ὁ παρ' οἰκονόμου* or *νομάρχου* or even one of the agents of a less conspicuous official as well as one of the agents of Apollonius. The title moreover does not imply a position in the service of the State.

The contents of the letters of this period first show us Zenon on his way to Syria and then in Syria and Palestine. Two documents of the year 25 (P.S.I. 324, 325), which are not addressed to Zenon, deal with grain trade and are written by Apollonius. The letters contain orders from Apollonius to two different persons to make certain merchants who export grain from Syria pay to the bank either the full price of the grain or

[34] On Zenon and his family relations see Edgar, pt. I, p. 160. Edgar quotes some unpublished papyri testifying to Zenon's relations with Kalynda.

a part of the sum as a pledge. We may suppose that the two letters of Apollonius were intended to be handed over in Syria to the addressees, were given to Zenon to carry with him to Syria and were never delivered: they have no dockets testifying reception. We may suppose therefore that in the year 25 Zenon was on his way to Syria. In the year 26 he is already somewhere in Syria or in Palestine. The only published letter of this year (P.Z. 2), is the already mentioned first letter of Apollonius to him informing him of the sending of two persons to Syria and ordering him to prepare a ship for them and to pay them their salaries.

More evidence exists from the following year. One letter, (P.S.I. 327), deals with some goods which were sent from Syria to Palestine for Apollonius, and contains the valuation thereof, probably for the custom-house. Some documents of this year carry us to Palestine. One, (P.Z. 3), is a contract of sale. Zenon bought at Birtha in the Ammanitis from a soldier of the cavalry corps of Tubias a girl-slave of 7 years of the name Sphragis. We shall meet the same Tubias later. He was probably an influential native sheikh entrusted by Ptolemy with the command of an Egyptian cavalry regiment. Another letter of the same year, (P.Z. 4), speaks again of private affairs of Zenon and his staff. A certain Straton, one of Zenon's staff (*ὁ παρὰ Ζήνωνος*), tries to get back some money lent by him or by Zenon to a native of an Ammanitis village by name Jeddus (probably an influential sheikh again). The attempt this time was unsuccessful; Straton, in spite of his military escort and a letter from Zenon, was ejected from the village with violence.

Finally in the last letter of this period, (P.S.I. 406), which bears no date but refers to the same locality and must be dated in the same year, we meet some individuals of less importance but turbulent and wicked indeed. They are coachmen (*συνωρισταί*) and grooms (*ἱπποκόμοι*) who either belong to the army or to a special corps of men buying up horses in the prairie land of the Ammanitis for the supply of the Ptolemaic army. The document is fragmentary and written in bad Greek, but we see how undisciplined and greedy this class of people were and how badly they behaved in the conquered land. They drink, buy and probably steal girls, violate them and disappear with

them and with the beasts in their care. Zenon seems to be their chief and to him is addressed this complaint of the foreman of these robbers, Herakleides.[35]

It is not an easy task to form a judgment about the duties which Zenon performed in Syria and Palestine. Does he belong to the regular administration of the province? Is he acting as an envoy of Apollonius the dioeketes or as the private agent of the same dioeketes? We may assume both, but we have no proofs for either of these assumptions.[36] The Syrian

[35] On this letter see Wilcken, *Arch.*, VI, 393, 449; cf. P.S.I. 616. Wilcken assumes that the two robbers were agents of Zenon hunting for slaves. But this buying and stealing of slaves is just what Herakleides, the chief of the robbers, objects to. Herakleides did not lend them a carriage with two horses: he does not speak of such a loan in his letter but exclusively of κτήνη, horses, which were neglected by the two scoundrels, and of a donkey and a wild ass which were sold by them. This implies that the two men were keepers of κτήνη and not professional slave buyers. We shall see later on that importation of slaves into Egypt from Syria was not allowed by the government.

[36] Almost nothing is known about the organization of the Ptolemaic administration in Syria, Phoenicia and Palestine. See D. Cohen, *De magistratibus Aegyptiis externas Lagidarum regni provincias administrantibus* (Hagae 1912), p. 98 ff. Therefore all the more important are the letters of the correspondence of Zenon. They seem to show that no regular financial administration of the country was sent to the district of Ammanitis from Egypt. The Ammanitis seemed to have been ruled by native chiefs. The same is shown for Palestine by the well known story of the ruler of Palestine, Josephus. Josephus probably received Palestine from King Euergetes I or from Philopator as a kind of δωρεά, with the obligation to pay to the King a kind of tribute, just as the nephew of Euergetes—Ptolemy the son of Lysimachus, received from him Telmessus in Lycia (see below p. 45 ff. notes 50, 51). This kind of financial autonomy does not exclude military occupation of the land by the Ptolemies. But even in this respect the Ammanitis seems to have enjoyed a kind of autonomy, as is shown by the fact that the sheikh Tubias held a military command of Egyptian troops. The system of the Ptolemies in ruling the cities and lands on the seashores was probably different. The Ptolemies certainly drew a regular income from the custom-duties of these ancient commercial cities. I cannot understand the attitude of Cohen towards the story told by Flavius Josephus. If some farms (ὦναι) of special revenues were sold in the provinces of Asia Minor and Thrace it does not imply that Palestine could not be handled in a different way and its revenues sold *en bloc* in Alexandria to the representatives of the country itself. It may be that along with this general farming of the revenues separate ὦναι of special

grain bought by the merchants might have been State grain or the private property of Apollonius. The horses might have belonged to the army but might have been bought by Apollonius for sale afterwards to the State. We shall see that the documents of the following period rather speak for the hypothesis that Zenon had no official commission in Syria and Palestine but was a private agent of Apollonius. But we must not insist upon this distinction for there is no definite line between private and public in the Ptolemaic administration, where the King dealt with the State as with his private estate; his subordinates of the higher ranks hardly drew a sharp line between their private affairs and the affairs entrusted to them by the King. We meet with the same confusion in the early Roman Empire. What status had the procurators of Augustus, *οἱ παρὰ Αὐγούστου*? Of course they were usually his private agents but in the senatorial provinces they had probably more importance than the proconsuls.

Probably in the same year 27 Zenon came back to Egypt. A letter of Apollonius of this year speaks of sending a ship to Gaza for him to bring him back to Egypt (P.S.I. 322, comp. P.S.I. VI, p. X). The date of this letter is not preserved, but I would suggest the year 27 or 28 rather than the year 25 which is proposed by Vitelli.

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taxes and of custom-duties in the harbours were sold separately. There was no *one* system of provincial administration at the court of the Ptolemies. The systems were adapted to local conditions and may have been changed very often according to circumstances. We have no right to postulate such a uniform organization for the Ptolemaic epoch, individual and informal as it was; a regular system of provincial administration first grew up in the Roman world State; the process of its formation was slow and in its beginnings it was very similar to the Ptolemaic system or rather to the Ptolemaic lack of system.

IV. ZENON AND APOLLONIUS

Zenon in Alexandria

The next two years of the activity of Zenon are much better known to us. In the years 28 and 29 Zenon was again in Egypt, now in Alexandria, now on a long journey through the northern and middle parts of Egypt.[37] The letters of this period are comparatively numerous and may be easily subdivided into classes which fully illustrate the activity of Zenon in Alexandria, living the life of an influential, perhaps the most influential member of the "house" (*οἰκία*) of Apollonius. But very soon Apollonius and with him Zenon left Alexandria and began a long journey through many different places in Lower and Middle Egypt. They stopped often and spent days and days in the same place. Of these halts of the travellers we know something. A comparatively long time was spent at a landing place on the river or on one of the main canals, Βερενίκης ὅρμος,—perhaps a new foundation of the Ptolemies; the location of this place is unknown. Afterwards Apollonius and Zenon resided for some time at Bubastus and at Mendes, visited Memphis and came to Alexandria, stopping perhaps at Tanis and certainly at Naucratis. This itinerary is of course not complete and we shall probably learn more of it after the whole of Zenon's correspondence has been published.[38] The stopping places were fixed by the aim of the journey which seems evident enough. The new administrative and economic system introduced by Philadelphus and Apollonius required constant watching by its authors, steady control and readjustment of the new bureaucratic machine and therefore the occasional presence on the spot of the chief manager and executive power, the dioeketes himself.

[37] The dates of the documents are quoted in this article according to the regnal years of Philadelphus, since the question of the calendar and of the dates of this reign have been hotly debated and are still the subject of controversy. See Edgar, pt. IV, 93, and Wilcken, *Arch.*, VI, 447.

[38] On the itinerary of Zenon see Edgar, pt. I, p. 174; pt. IV, p. 81; cf. Wilcken, *Arch.*, VI, 448.

But Apollonius during his travels was occupied not alone by his organization of the public economy and by other affairs of State. He had various private affairs of his own on hand and during his travels he attended to them constantly. We shall see that for this purpose especially he had taken Zenon with him.

In one of the letters, written from Alexandria to one of the members of Zenon's staff, we meet with the title which Zenon bore at that time (P.Z. 16). He is of course still ὁ παρὰ Ἀπολλωνίου but at the same time he is the οἰκονόμος of Apollonius. This title is given to him in this document only, wherein the official title στολάρχης is given to one of his colleagues. We may therefore conclude that οἰκονόμος is also an official title. The designation οἰκονόμος is very vague indeed and has many meanings. Its origin must be sought in the domain of private economy, the oeconome being the manager of the house, corresponding to the latin vilicus, the manager of a villa. In the Egyptian administration this title was given to the direct representatives of the dioeketes in the administrative regions of Egypt, the nomes, or to his representative in the foreign provinces. It is impossible to assume that Zenon was one of these Egyptian or provincial oeconomes. The letters do not show that Zenon had any special official connection with any place either in or outside of Egypt. The following investigation of the correspondence of Zenon for these two years will show precisely what the title did mean.

Before we deal with the content of the many letters of these two years we must first stop and look at the surroundings of Zenon, at his constant correspondents who also formed a part of Apollonius' staff. This survey will bring us into the midst of the court of Apollonius, which was not very different from the court of the King himself.

The best known members of the court of Apollonius and the closest colleagues of Zenon were the following. An important post was occupied by *Amyntas*, a man probably of Macedonian origin. According to the content of the letters which he wrote to Zenon, he managed large numbers of domestics employed by Apollonius. His official title is not mentioned in Zenon's correspondence, but the contents of his letters leave no doubt

of the character of his commission. One of the most amusing of his letters runs as follows (P.S.I. 329, year 28): "Amyntas to Zenon greetings. You must know that the cook whom you bought ran away taking with him the 80 drachmae which he received for buying hay for the horses. He was met by some people near Athribis. He is now with the Cappadocians who have their camp there. You would do well if you would announce to all our servants, and if you would write to everybody whom you find useful, to catch him and to help in sending him to you (or to me)."[39] It is interesting to see that the household of Apollonius consisted, at least in part, of slaves who were dispersed all over the country and that this household was constantly being enlarged by new purchases of slaves. We may conclude from this letter that one of the tasks of Zenon was to buy slaves for Apollonius' household and that slavery was gradually introduced into Egypt by the new foreign elements in the country.

Similar information is derived from the letter P.S.I. 483; here we find Amyntas quarreling with one of the carpenters of the household. In another letter (P.Z. 10, year 28), he gives orders to pay salaries to some Greek members of the household, among others to an Artemidorus the ἐλέατρος,—the manager of the table, and to the gardener, probably chiefs of the corresponding departments of the household.

Some papyri, (P.Z. 8 and 9 and P.S.I. 533; cf. P. Lond. Inv. 2305), deal with preparations for a river journey. Amyntas asks Zenon to prepare several ships for this journey and to buy

[39] The text of this letter is printed by Vitelli with some lacunae and some unsatisfactory supplements. I give it with the corrections of Wilcken, *Arch.*, VI, 386, and with my own. *'Αμύντας Ζήνωνι χαίρει[ν· γίνωσκε ὅτι ὁ μά]γειρος ὃν ὑμεῖς ἐπρίασ[θε]/ λαβὼν χαλκοῦ δραχμὰς π ὥστ[ε εἰς χόρτασμ]α τοῖς ἵπποις ἀποδέδρακ[ε· συνήν]/τηκε δέ τισιν περὶ Ἀθλιβιν· ὅς καί ἐστιν [παρὰ] τοῖς Καππάδοξι τοῖς ἐκε[ῖ τεί]/νουσιν. καλῶς ἂν οὖν ποιήσαις τοῖς τ[ε] παισὶ πᾶσι διαγγείλας καὶ γρά[ψας πρὸς]/ οὓς ἄν ὑπολαμβάνηις χρήσιμον εἶν[αι ὅ]πως ἂν οἱ παρ' ἡμῶν ἐπιλαμβ[άνων]/ται αὐτοῦ συναντιλάβωνταί τ[ε τοῦ κ]ατασταθῆναι αὐτὸν πρὸ[ς ὑμᾶς]. Ἔρρωσο. Γκη [. . .* Verso. *(ἔτους) κη Δύστρου η ἐν Μένδητι. 'Αμύντας περὶ τοῦ μαγείρου/τοῦ ἀποδράντος.—Ζήνωνι.* Cf. P.S.I., VI, p. X; in l. 3, Vitelli proposes: *ἐκε[ῖ σταθμὸν ἕ]/χουσι*, which may be accepted if the *χ* in l. 4 is certain. In l. 5 Edgar and Vitelli read *εἶν[αι ἵ]να ὡς ἂν οἱ* et cetera.

certain equipment and some pieces of furniture. If the plans were made for the journey by Amyntas himself, as seems likely, Apollonius not being in Alexandria at that time, we cannot but wonder at the high requirements of this courtier of second rank and at the comfort of his travels.

Other officials of high rank were *Aristeus* and *Artemidorus*. The first was the treasurer, the second ὁ ἐπὶ τῆς οἰκίας, i.e., a kind of manager of the palace of Apollonius, similar to such managers as were formerly members of the households of the Russian Grand Dukes. All of these officials are named in P.S.I. 331. Very amusing is the letter P.S.I. 411. A fourth member of the court, Kriton, of whom I shall speak later, informs Zenon that: "Apollonius has opened the treasury[40] and has missed seven talents of silver and ordered the accounts of Aristeus and Artemidorus verified. I have written this to you so that you may accordingly make your own accounts ready. Apollonius was especially angry that the money was recorded as paid, without his order." It seems that the prospect of being called up for accounts without preparation was not a very pleasant one for the members of Apollonius' court.

The same Artemidorus is named also in P.Z. 26 (year 30) along with another *Artemidorus*, the chief secretary. Another papyrus where we meet some of the same individuals and some new ones is P.S.I. 340, while the same subject is discussed in P.Z. 11 and perhaps in P.S.I. 391 (b) (cf. also P. Lond. Inv. 2096). Unfortunately the letter P.S.I. 340 is not complete and is badly preserved; the first part of the letter is missing and the part which we have in full contains more hints at well known facts than the facts themselves. Who the writer of the letter was we do not know; it is addressed to *Artemidorus the doctor*, probably the house doctor of Apollonius. There are some difficulties concerning a *palaestra*. The author of the letter is involved in these difficulties. The question is, will the *palaestra* be opened or not? The writer is afraid that the King would become aware of the opening of the *palaestra* and that

[40] Πίσκος (chest) seems to be a common word in the Hellenistic period and especially in Alexandria; it designates the treasury. See Ps. Aristeas, 33 and the Lexica, cf. P. Lond. Inv. 2312, l. 11. Josephus, A. J., XII, 2, 4, translates it as κιβωτός; cf. Cohen, *De magistratibus Aegyptiis*, p. 102.

he, the writer, would be held responsible for it. The cause of all these troubles is a certain *Metrodorus* (1. 4: ἔστι δέ σοι πάντων τῶν κακῶν αἴτιος Μητρόδωρος). Further on this Metrodorus is defined as an ἄνθρωπος ἀνελεύθερος a man without culture, a *parvenu* in the circle of the highly civilized courtiers of Apollonius. But he can do much harm if Amyntas and the addressee will not interfere and if *Hegemon* will not write to Apollonius. If all these efforts remain unsuccessful and a certain *Ptolemaeus* does not receive the management of the *palaestra* the writer would be obliged to resign (1. 17: ἐκχωρεῖν ἐκ τῆς οἰκίας). Some lines in this letter are worthy of quotation in full, as they throw a splendid search-light on conditions prevailing in the house of Apollonius, 1. 7 ff.: "I did not know of all that (the intrigues of Metrodorus). But now when I learn of it I protest and I say: Apollonius spends most of his time in the country (χώρα as opposed to Alexandria); Amyntas does not live in the house; he has recently been married and a baby has been born to him; he is therefore beyond suspicion. Accordingly it is against me that the arrow is shot, against me who lives in the house."

What kind of *palaestra* is meant in this and the related letters quoted above I do not know. It seems to be a *palaestra* where the children of the higher officials were trained, the νεανίσκοι from the ranks of whom the officers of the army and the higher officials were recruited, a kind of page corps closely connected with the house of Apollonius.[41]

And now to consider the last and perhaps the most interesting member of this company. I mean *Kriton the stolarches*, the commander of the fleet. His title is mentioned in the letter quoted above (P.Z. 16, year 28). The treasurer Aristeus writes to Aratus who accompanied Apollonius on his journey, to remind Zenon and Kriton not to forget to buy various kinds of cloth, some of which were specialities of the city of Tanis. His commission as commander of the fleet is reflected in his short and friendly letter to Zenon (P.Z. 17), where he urges

[41] On these νεανίσκοι see the last article of the late Lesquier, "Le papyrus 7 de Fribourg," *Rev. d. études gr.*, XXXII (1921) 367. On the νεανίσκοι βασιλικοί see Rostowzew, "Die römischen Bleitesserae," *Klio*, Beiheft 3 (1905) p. 78.

Zenon to return to one of the sailors his pledge, lest the sailor refuse to work. But the most instructive are the letters P.S.I. 494 and 495 (both of the year 28) which form a unit with some letters written to Zenon (P.Z. 12 and 14, both of the year 29) and to Apollonius himself (P.S.I. 330, year 28). The letters P.S.I. 495 and P.Z. 14 were written by a certain *Heraclitus;* P.S.I. 494 by *Zoilus*, P.Z. 12 by *Krotus*. Moreover in P.S.I. 614 is mentioned *Heragorus* whose name is connected with olive oil in the agenda of Zenon P.S.I. 430, 3. These men very often mention each other. All write from abroad, from Syria and Palestine. Kriton himself travels very often and is often abroad (P.S.I. 614). They mention in their letters Ake (Ptolemais) (cf. P.S.I. 612), and Tripolis, Joppe, Gaza, Tyre, Sidon, the plain Μασσύας, between the Lebanon and the Antilebanon. Some of these places, Gaza, Ptolemais, Rhabatammana, and moreover some cities of Asia Minor, Kaunus, Miletus, Halicarnassus, are mentioned also in P.S.I. 616, in connection with trade in cloth. All the letters speak of commercial transactions, of purchases and sales of different kinds of goods, of quarrels with the custom-houses. The letter P.Z. 14 shows that much trade was done in slaves, but that exportation of slaves was subject to certain formalities, the exporters being obliged to have a special license, l. 10 ff.: "*Menecles*, the man in Tyre, told me that he himself transported some slaves and goods from Gaza to Tyre and transshipped them in Tyre without having declared them to the farmers of the customs and without having a license for export; the custom officials became aware of it and confiscated the goods and the slaves." The rest of the story was that *Apollophanes*, an agent of Kriton, declared to the custom officials that the goods belonged to Zenon; thus Menekles got possession of them again. Heraclitus considered that Zenon should have given orders to Apollophanes to "profess" (ἀπογράφεσθαι—a technical term of the custom-houses) as belonging to him, only "that which is useful."

Most characteristic is a letter of Zoilus written to Apollonius (P.S.I. 330). He asks Apollonius for permission to come up to Egypt and to report to Apollonius on "everything." "Do not allow me to be ruined, but help me. You thought me

worthy of great honour, but that man covered me with the greatest dishonour. I do not argue about money, the money which I paid under pressure, against every right and law." The man seems to have been involved in some rather doubtful affairs as an agent of Apollonius, and he hopes to be protected by him.

One of the men who appears in P.S.I. 495 is *Nicanor* (cf. P.S.I. 616, 5). He seems to be a man of some authority in Syria. We meet him again in P.S.I. 594, where he is sending to Apollonius some ξένια, i.e., gifts of wine, olive oil, meat, etc. In the same document are enumerated some products, including Syrian wine from the estate (κτῆμα) of Apollonius in Baitanata in Palestine (Bethanath), sent with the same ship by a certain *Melas*. This Melas, as Edgar pointed out, seems to be the manager of Apollonius' estate somewhere abroad, as shown by the very fragmentary document P.S.I. 554. The letter, P.S.I. 594, is written by Nicanor not to Apollonius but to Zenon and Kriton. The goods were to be delivered by the agent of Nicanor, Leonidas, at Memphis. We shall later learn something of Apollonius' connections in Memphis. Were the products, sent by Nicanor, also products of an estate of Apollonius or were they gifts, not to say bribes of an influential official to the mighty dioeketes of Alexandria?

Our evidence about the affairs of Apollonius in Syria is scanty enough. But I must confess that the impression produced on me by the papyri quoted above is not a very attractive one. These agents of Apollonius who worked for him, one of whom was Zenon for some time in Syria and Palestine, tried to make the most out of the high position of their master. Syrian oil and slaves (cf. P.S.I. 648 where "slaves from Syria,"—σώματα ἀπὸ Συρίας, are mentioned), just the articles which were not allowed to be imported into Egypt, seem to be the goods in which they dealt by preference. Their worst enemies were the farmers of the custom-duties, men who were certainly subordinates of Apollonius.

Another case of the same type forms the subject of a sharp letter which one of the highest courtiers of the King, *Posidonius*, the ἐδέατρος or master of the table, wrote to Apollonius in the year 28 (P.Z. 6). His barge with grain was arrested by the

farmer of the custom-duties at Memphis, and the iron which he had on board was confiscated. Trade in iron apparently was not allowed to private persons. Posidonius is highly indignant. He claims of course that the iron is not for sale but is part of the necessary equipment of his barge. And he appeals to Apollonius to whom certainly the custom-houses of Egypt were subordinate.

Apollonius appears therefore as a man involved in many various commercial affairs in Syria. No doubt these were his private affairs and had nothing to do with his official position. He owned large fleets of merchant ships both in Egypt and abroad, and the commander of these fleets was Kriton the stolarch. We may ask, why did the King allow this curious combination of official and private business? I imagine that Philadelphus was not against such a combination. Was he not himself at once a King and a wholesale merchant? Did he not himself trade in the products of his lands? It was easy to nationalize everything in Egypt: agriculture, industry, trade and the rest. But foreign commerce is a complicated business and without the help of the born traders and sailors, the Greeks, no foreign commerce whatever was possible. Apollonius may have cheated the treasury of which he was the head. But without such men as Apollonius Egypt was unable to develop its world-wide trade and to claim to be the heir of Athens. I do not know that Apollonius himself did not act as a kind of agent of the King. I repeat, no sharp lines can be drawn between private and public in the Hellenistic monarchies in general. The Bosporan Kings, for example, were at the same time kings and presidents of the associations of Bosporan and foreign merchants, being great merchants themselves.[42]

Such was the court of Apollonius. For the first time the correspondence of Zenon gives us a vivid picture of such a court, the court of one who was a high official and a business-man at the same time. How complicated was its organization! We hear nothing of the lower elements of this court, slaves to a great extent. But how many heads of different departments we meet: the master of the house, the master of the servants, the

[42] See my book, *The Iranians and the Greeks in South Russia* (Oxford, 1922), ch. IV, VII.

treasurer, the secretary, the doctor, the head of the *palaestra*. Below them some minor officers: the chief of the table, the chief gardener, the chef, the chief carpenter, etc., etc. And along with them the master of the commercial fleet and scores of agents in Syria and probably in other places. Can we affirm that this organization was a revival of the ancient Oriental and especially the Egyptian courts? The analogy in some points is striking. But have we not a little later a similar organization in the courts of the great Roman magnates of the second and first centuries B.C.? We may say that these were copies of the Hellenistic courts. But could not the organization of a purely Greek house have developed into a court and have been merely influenced by the Oriental customs? The "house" of a Roman senator was just a typical Roman "domus" but of enormous size and consequently exceedingly complicated.

Zenon was a member of this court. We may say he was already that during his stay in Syria and Palestine. What kind of commission had he at this court? Let us examine the documents.

It is worth noting that among more than forty letters of the archives of Zenon which belong to this period only one is connected with affairs of State and this one is addressed not to Zenon but to Apollonius himself. This letter (P.Z. 5), written by a certain Demetrius, speaks of a highly important matter closely connected with the building up of the Alexandrian trade. Demetrius reports to Apollonius the result of an order issued probably by the King and by Apollonius, according to which all the foreign merchants were required to exchange their foreign gold, likewise their worn Ptolemaic gold coins and even their gold plate, for Egyptian gold and silver coins. The aim of the measure itself was not unwise. But many details had not been provided for with the result that trade was hampered; the business-men, the wholesale merchants (ἔμποροι) and the owners of store-houses (ἐγδοχεῖς) became angry. They had brought with them much gold plate to be used in making their purchases and now complained (l. 24), they could not "send out their agents to buy goods and their gold lay dead." I cannot deal with this papyrus at length. It requires a special investigation from the numismatic and economic points

of view. But I do not wonder that this letter was handed over by Apollonius to Zenon. Was Zenon not the chief of the commercial operations of Apollonius and had he not constantly to do with foreign trade?

The rest of Zenon's correspondence deals exclusively with the private affairs of Apollonius. A comparatively small number of letters bear on matters connected with the household of Apollonius in the strict sense of this word. I have mentioned some of them already in dealing with the staff of Apollonius. There are, for example, letters asking for money to expend on the travels of Apollonius and his staff (P.S.I. 482 and 533; P.Z. 8 and 9), a letter dealing with some grain to be paid to a πράκτωρ (P.S.I. 335), a letter demanding money for the payment of salaries (P.Z. 10), etc. A curious group deals with religious affairs. In P.S.I. 328 (year 28) the priests of Aphrodite of one place in the Memphite nome ask for a large amount of myrrh for the ceremony of the burial of Osiris or Adonis. The letter is interesting in itself as another instance of the mixture of native, Greek and dynastic cults.[43] Aphrodite is certainly another name for Isis, as the priests themselves explain it, and both are identical with Arsinoe.[44] It is not surprising that for the burial of her divine husband, be it Osiris or Adonis, the priests expect the government to give the required myrrh. But why do they ask Apollonius and not the King directly? Hardly because the trade in myrrh was entirely in the hands of the State. If this were the reason the priests should ask the oeconome of the nome for it. But we shall see later on that

[43] See the ingenious article of G. Glotz, "Les fêtes d'Adonis sous Ptolemée II," *Rev. d. études gr.*, XXXIII (1920) p. 169 ff.

[44] I see no possibility of following Wilcken in his explanation of this papyrus as given in *Jahrb. des Deutsch. Arch. Inst.*, XXXII (1917) p. 202 and *Arch.*, VI, 386. He thinks that the myrrh was required for the burial of a woman or girl who had drowned herself in the Nile (ἐσεῖς),—perhaps favourite of Philadelphus. The burial is probably that of Osiris or Adonis, not Apis. The name ἐσεῖς may be a mystical name for Isis and in this way may have been given to those who found their death in the sacred waters of the Nile. More probable is the explanation of Edgar, P.S.I. VI, p. X: he thinks it was the sacred cow, Hathor, drowned in the Nile by the priests in a sacred ceremony, cf. Spiegelberger in *Orient. Literaturzeitung*, XXIII, 258.

Apollonius had quite special relations with the Memphite nome, which were not restricted to his having an estate (δωρεά) there. I think therefore that the priests addressed Apollonius as *the man* who represented for them the King and the State.

Of the same kind is P.S.I. 435—P.Z. 7 (year 28), again a document highly interesting for the history of the religious policy of Philadelphus. This time a certain Zoilus (is he not the same man who was the agent of Apollonius in Syria?) asks Apollonius to give him money for the erection of a sanctuary to Serapis somewhere outside of Egypt. He refers to some miraculous appearances (ἐπιφάνειαι) of Serapis and tells how he was punished for his incredulity by a sudden illness. It is just the well known story told by Livy about Juppiter Capitolinus. The aim of the man is certainly to make himself known to the King through his devotion to the cult of Serapis created by the King. Since it was a request for money, the letter was given to Zenon by Apollonius, just as he had given him the request of the priests of Aphrodite.[45]

But the greater number of the documents of these two years are of quite a different character. They may be divided into two large groups. One group which I tried to explain, early in this chapter in dealing with Kriton, is concerned with the commercial affairs of Apollonius in Syria, Phoenicia and Palestine. All these letters, whether written to Zenon personally or to others, to Apollonius or to Kriton, were placed in his hands, no doubt because he was the chief manager of these matters prepared as he was to deal with them by his two years of residence in Syria. Another letter of the year 28 refers to the same activity of Zenon (P.S.I. 491). *Epharmostus* (the brother of Zenon?) forwards his accounts and some eight documents to Apollonius, first through *Agreophon* and then through Zenon. Among the documents there is a letter of *Hipponicus* and one of the *banker Zoilus*.

The second group, still larger and still more important, deals with agricultural work near Memphis and Philadelphia. For the year 28 we have ten such and a larger number for the next

[45] Cf. the well known story of the Serapeum of Delos lately investigated by P. Roussel, *Les cultes égyptiens à Delos* (Paris, 1916), p. 71 ff. On the ἐπιφάνειαι see Rostowzew, *Klio*, XVI (1920), p. 203; cf. P.S.I. 539.

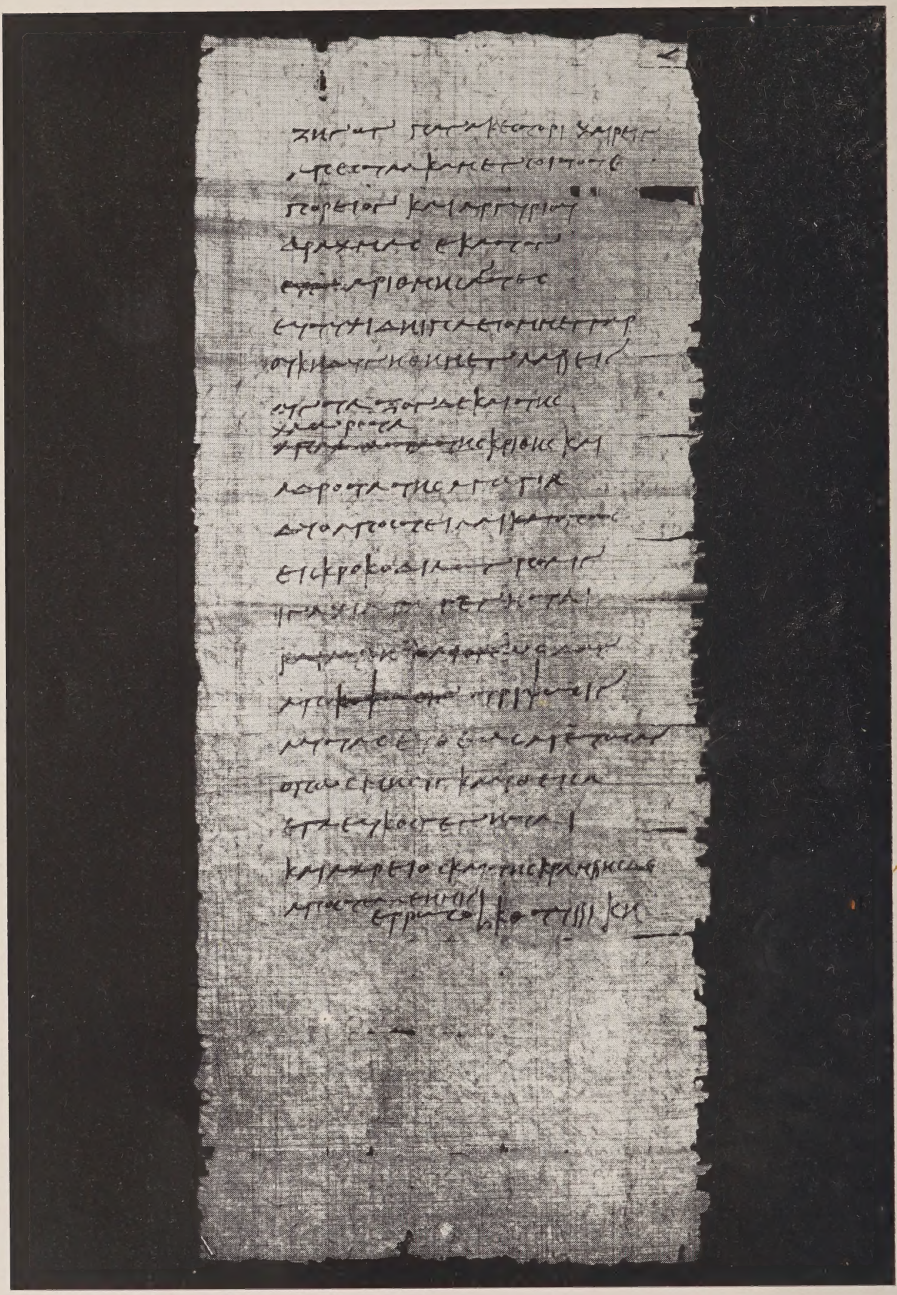

PLATE II

P. Z. 22. Letter from Zenon to Panakestor

year. They refer to lands which Apollonius received from the King as gifts, δωρεαί. The chief correspondents of Zenon were a certain *Panakestor* who resided in Philadelphia and a certain *Addaeus* who wrote to Zenon from the Memphite nome. Panakestor even came to see Zenon to confer with him on these affairs (P.S.I. 502). Many letters give Panakestor the title—ὁ παρ' Ἀπολλωνίου, the same which Zenon had in Syria. He was certainly the chief manager of the δωρεὰ of Apollonius in Philadelphia and we may assume the same position for Addaeus over the δωρεὰ near Memphis.

This evidence shows that Zenon in the years 28 and 29 was the chief manager of all the private affairs of Apollonius, both commercial and agricultural. He stood in the same relation to Apollonius as Apollonius to the King. Thence his title οἰκονόμος the manager of Apollonius' οἶκος (estate), of all the economic affairs of Apollonius. He may have occupied the same post during his stay in Syria or he may have been promoted to this influential position after displaying exceptional ability in his work in Syria.

The second half of the year 29 brought an important change in the life of Zenon. He left Alexandria for the Arsinoite nome never to return to Alexandria. Some of his letters of the year 29 are docketed as received in Arsinoe (P.S.I. 505 and P.Z. 15, comp. Edgar II, p. 235); one is written by him to Panakestor from Crocodilopolis (P.Z. 22), the capital of the Arsinoite nome. At the same time Apollonius was expected to come to the Fayum (P.Z. 18). It is not easy to say what place is meant by Arsinoe. The most natural supposition would be that Arsinoe is Crocodilopolis and that Zenon spent some time in the capital of the nome before starting for Philadelphia. But some scholars have suggested several reasons for supposing that Crocodilopolis never bore the name Arsinoe and at that period was usually called Crocodilopolis.[46] I cannot discuss this matter here although I have many doubts on the value of this suggestion (see P. Petrie II, 26, 7 and 8, III, 64 (a); Plaumann, *Arch.*, VI, 180). On the other hand we know of a place near Philadelphia called Arsinoe which is often mentioned in Zenon's correspondence in close association with Philadelphia

[46] Grenfell, P. Tebt., II, Geographical Appendix, *sub verbo*.

(P.S.I. 360, year 34). Nevertheless I am inclined to suppose that Zenon stopped not at this last Arsinoe but in the city, in the capital of that name.

Why did he go to the Fayum? We have seen that his activity in the year 29 was more and more absorbed by the management of the agricultural affairs of Apollonius. It may be that Apollonius decided to devote more attention to these affairs and to invest in them more money. In any case the whole amount of this business was placed in the hands of Zenon. On the other hand the correspondence of Zenon with Panakestor and of Panakestor with Apollonius shows that Apollonius was not satisfied with the activity of Panakestor at Philadelphia. One of the letters which Apollonius addressed to Panakestor in the year 29 (P.Z. 19) contains a polite but flat refusal of one of the demands of Panakestor. Another letter of the same year (P.S.I. 502) is sharper in tone and accuses Panakestor of negligence. At the same time Panakestor during his visit to Zenon seems to be looking for other employment (P.S.I. 502, 1-7).

It is not surprising that having decided to invest large sums of money in his domain of Philadelphia (see below, chapter VI), Apollonius should have sent to Philadelphia his best man, Zenon, without having dismissed Panakestor. In any case Zenon after having stopped for some time at Arsinoe-Crocodilopolis, or at Arsinoe and Crocodilopolis, went straight to Philadelphia where we meet him in the month of Mecheir of the year 29. P.Z. 23 is a letter received by Zenon in Philadelphia where he is addressed in the same way as Panakestor before him, as ὁ παρ''Απολλωνίου ἐν Φιλαδελφείαι τῆι ἐν 'Αρσινοίτηι. No doubt then he had been appointed by Apollonius chief manager of his estate at Philadelphia where he was to reside. His further correspondence shows that he never left Philadelphia except for short times but devoted his life to the affairs of Apollonius there. After the year 29 there are almost no letters which deal with business outside Philadelphia. His friends in Alexandria do not write to him very often and when they do their news is not always pleasant. For example in the letter P.Z. 26 (year 30), Zenon is informed that Artemidorus the house-keeper of Apollonius does not want to pay

the debts contracted by Zenon in the name of Apollonius (l. 18): "Artemidorus says that the matter does not concern him and that he will not even pay any attention to it if you write to him personally." We may suppose that Artemidorus was the successor of Zenon in his office of chief manager of the private affairs of Apollonius. This impression is confirmed by a letter written to Zenon by Artemidorus in the year 30 (P. Lond. Inv. 2083). In this letter Artemidorus asks Zenon to send him an accounting of the purchase of some animals he had bought, as the expense should be charged to the account of Apollonius and not to the account of the estate.

Thus after the year 29 the correspondence of Zenon deals almost exclusively with the affairs of Philadelphia and the δωρεὰ of Apollonius there. Let us examine the nature of his business there.

V. ΔΩΡΕΑΙ

We have seen that the economic interests of Apollonius lay chiefly in land which he possessed in the two nomes, Arsinoe and Memphis. These interests are described in some documents of Zenon's correspondence. In the fragmentary P.S.I. 511, l. 4, something, the name of which is missing, is sent *εἰς τὴν ἐν Μέμφει δωρεὰν τὴν Ἀπολλωνίου* to the estate of Apollonius in Memphis. The account dealing with the new wine, *γλεῦκος* (P.S.I. 544) is headed: *εἰσὶν οἱ οὐκ εἰληφότες/τὸ γλεῦκος δι' Ἑρμολάου/ἐκ τοῦ Μεμφίτου./ ἐκ τῆς Ἀπολλωνίου* (i. e., *δωρεᾶς*) *μετρηταί κ* (twenty). So much for Memphis. In P.S.I. 518, the first lines run as follows: *(ἔτους)/λε ἐκ τῆς Ἀπολλωνίου/τοῦ διοικητοῦ δωρεᾶς/τῆς Δάμιδος καὶ Ἐτεάρχου νομαρχίας.* We know that the nomarchy of Damis and Etearchus was situated in the Arsinoite in the meris of Herakleides. Therefore this second *δωρεὰ* of Apollonius is identical with Philadelphia, the residence of Zenon.

Thus Apollonius possessed two estates called *δωρεαί*: one in the Arsinoite, the other in the Memphite nome. *Δωρεὰ* means gift, present. The special kind of land grant called *δωρεαὶ* is known to us from some references in the documents of the early Ptolemaic times, from Philadelphus to Philopator. I have dealt with this topic in my book on the Colonate.[47] Let me briefly repeat my statements with certain modifications and additions.

The nature of a *δωρεὰ* is clearly defined in two chapters of the *νόμοι τελωνικοί* of Philadelphus: in col. 36, the *πρόσταγμα* of Philadelphus of the year 23, and in col. 43 in the chapter on the payment to the treasury of the *φορτία ἐλαικά*.

The first text prescribes a registration of the vineyards and orchards by their holders (l. 11 ff.): *ὡσαύτω[ς]/ δὲ καὶ τ[οὺ]ς κληρούχους τοὺς ἔχοντας<τοὺς>ἀμπελῶ[νας]/ἢ παρα[δείσ]ου[ς ἐ]ν τοῖς κλήροις οἷς εἰλήφασι παρὰ τ[ο]ῦ βα/σιλέως καὶ τ[οὺ]ς λοιποὺς πάντας τοὺς κεκτημένους / ἀμπελῶνας ἢ παραδείσους ἢ ἐν δωρεαῖς ἔχοντας ἢ γεωργοῦντας καθ' ὁντινοῦν τρόπον ἕκαστον*, etc.; that is to say,

[47] Rostowzew, *Studien*, p. 42 ff.; cf. Lesquier, P. Lille 28, introduction and commentary.

"similarly both the cleruchi who possess vineyards or orchards in the lots which they have received from the King, and all other persons who own vineyards or orchards or possess them within their δωρεαὶ or hold them in lease on any terms whatever." The second text (l. 11 ff.) says: [ὅσ]οι δ' ἀτελεῖς εἰσιν κατὰ τὴν χώραν ἢ ἐν δ[ωρεᾶ]ι/ [ἢ] ἐν συντάξει ἔχουσι<ν>κώμας καὶ γῆν that is to say, "all persons throughout the country who are exempt from taxation or hold villages and land in gift or receive the revenues therefrom as income." And finally in col. 44, 3 ff. we read: ὅσαι δ' ἐν δωρεᾶι κῶμαι εἰσιν ἐν ταύταις δὲ ἐλαιούργιον μηθὲν καθιστάτωσαν, "they shall not install oil factories in the villages which are in gift."

I must first emphasize the fact that δωρεὰ and δωρεαὶ are used by Philadelphus in two different though related senses: village ἐν δωρεᾶι or land ἐν δωρεᾶι mean the same as δωρεαὶ simply, thus δωρεὰ designates both the status of the land and the land itself.[48] Moreover the R. L. show that the δωρεαὶ were very common in the time of Philadelphus and ranked as high in importance as other classes of land, such as the cleruchic lands and the private lands. The status of this class of land was similar to that of lands which were exempt from taxation and lands ἐν συντάξει, that is, according to the explanation of Lumbroso, the lands whose revenues were regarded as substitutes for salaries or other payments due to their holders. But there is no evidence in the R. L. that the δωρεαὶ were exempt from taxation. Another peculiarity of the δωρεαὶ is that they may be land only, or land and a village, even land and many villages. Philadelphus in his νόμοι τελωνικοὶ makes no distinction in this respect in saying κώμας καὶ γῆν; he allows us to suppose that generally the two kinds of gifts were combined, land being given together with the κώμη or κῶμαι. It is to be noted that such villages were not allowed to contain oil factories, precisely because they were given in gift. We shall later come back to this point.

The scanty evidence of the R. L. quoted above is almost all that we have hitherto had about the δωρεαί; references to the δωρεαὶ in the early Ptolemaic texts are very rare. Let me

[48] In this point my translation differs from that given by Grenfell.

review these references. Near the village of Κάμινοι (Furnaces) there was the δωρεὰ of Chrysermus (P. Lille 28, year 4 of Philopator). Chrysermus is a comparatively well known man. An inscription at Delos (Dittenberger Or. Gr. inscr., 104) of the time of Euergetes shows that he was a son of Heraclitus, an Alexandrian citizen and under Euergetes had the title of the King's relative (συγγενής) and some honorary commissions in Alexandria: he was ἐξηγητής, ἐπὶ τῶν ἰατρῶν and ἐπιστάτης τοῦ Μουσείου, i. e., the president of the city council in Alexandria, the president of the Academy of Medicine and the president of the Academy of Science and Letters or Museum. His active service was performed in the time of Philadelphus when he was one of the Eponymi (titular heads) of a military corps, probably the acting and not the honorary commander. The papyrus P.S.I. 513, year 34, mentions one of his officers who had received land in the territory of Philadelphia. Under Euergetes he was out of active service but was highly esteemed, therefore probably not very young. In P.Z. 65 (year 4 of Euergetes) he acts as a judge in a law-suit between two members of the late Apollonius' household—Zenon and Philon. Yet he survived Euergetes, as is shown by the papyrus which mentions his δωρεὰ in the year 4 of Philopator, and kept his prominent position even under Philopator. His son Ptolemaeus was one of the ablest diplomats of Philopator and a friend of Cleomenes (Plut. Cleom. 36). Nay, even the sons of Ptolemaeus and one of his grandsons were still influential at the beginning of the second century, as is shown by the fact that they were sent to Delphi as ambassadors in 188 and 185 and were elected Proxeni of Delphi (Dittenberger, Syll.,[3] 585, l. 52 ff. and 84). It is probable that Chrysermus received his δωρεὰ either under Philadelphus or under Euergetes, as it is hardly possible that the old man lived very long under Philopator. He may have received from Euergetes some of the grants given to Apollonius by Philadelphus. This would explain his rôle of arbiter and judge between the two members of the former court of Apollonius, P.Z. 65. Of his δωρεὰ as such we know very little. The peasants of the village Κάμινοι worked the land of the δωρεὰ and paid the ἐκφόριον or rent to Chrysermus; in judicial and

administrative matters they were subject to the regular administration.

Another document, P. Lille 19 (year 16 of Euergetes) speaks of a certain amount of grain (2247½ artabae) paid by Sarapion the manager of the estate of Kallixenes (ὁ προεστηκὼς τῆς Καλλιξένους δωρεᾶς), through an agent of the epimeletes to the treasury. The nature of the payment is not understood nor is it known who Kallixenes was.

Finally Lesquier in his comment on P. Lille 28 pointed out that P. Petrie III, 100 (b), col. II, 30, seems to mention a δωρεὰ of Nicanor (ἀπὸ τῆς Νικάνορος δωρεᾶς). If he be right Nicanor may be identical with the Eponyme of one of the military corps mentioned in 238/7 B. C. (P. Petrie I, 15-III 2, 5-6). Moreover the δωρεαὶ are mentioned also in P. Petrie II, 39 (g), a reference to hay which belonged to a δωρεά, and perhaps in P. Petrie II, 53 (s), where one of the taxes seems to be assigned to the holders of a δωρεά.[49]

Outside of Egypt we may regard as a δωρεὰ the city and land of Telmessus, given to Ptolemy son of Lysimachus by his uncle King Euergetes.[50] Many peculiar characteristics suggest also a similarity between the holders of the Egyptian

[49] P. Petrie II, 39 (g) is a collection of excerpts from different letters, the second excerpt being: ἄλλη. οἶμαι σε παρακολουθεῖν/ διότι ὑπάρχει ἐν τῇι δωρεᾶι/χόρτος ἱκανὸς ἀφ' οὗ ἐὰν/ ἐν δυνατῶι ἦι ληφθῆναι/ εἰς τὰς ἐν τῶι νομῶι ἀβρόχους/εἰς ἀρούρας Σ ἢ πλεῖον καὶ εἰσμετρηθῆναι τὸν καθή/κοντα πυρὸν οὐδ' ἐὰν ἀνείη. The sense of this excerpt is far from being clear. P. Petrie III, 53 (s) contains a πρόσταγμα of the King: . . . ἡ]/μέρας κ. προσ/τάγματα βασιλέως/ Πτολεμαίου./ἀφείκαμεν δὲ/ καὶ τὸ γράφιον/ τῶν Αἰγυπτί/ων συγγραφῶν. /τὸ δὲ ἀπὸ [τ]ού/των πρότερον πεῖπτον/ διδόναι παρ' αὐ/τοῦ τοῖς ἔχουσι/ τὴν δωρεάν. ἔτους ις Γορπιαίου δ, Χοιὰχ ιά. Again the sense of this order is not clear. It seems that the revenue from the γράφιον due for the former years was given by the King to the holders of a certain δωρεά, the payers being freed for the future from the payment of the tax. P. Petrie III, 73, which I quoted in my *Studien*, p. 42, speaks of a market building which belonged to a certain Artemidorus; the building may have belonged to a δωρεά.

[50] See Rostowzew, *Studien*, p. 278 ff. On Ptolemaeus who is a subject of controversy, see E. von Stern, *Hermes*, 50 p. 427 ff., especially p. 437. Stern quotes my statement on the δωρεὰ of Ptolemaeus in my book on tax farming, *Geschichte der Staatspacht in der Römischen Kaiserzeit* (Leipzig, 1900), p. 261, note 61, but overlooks my treatment of the inscription Dittenberger, *Or. gr. inscr.*, 55, in my *Studien* quoted above.

δωρεαὶ and Josephus the farmer of Palestine, probably under Philopator.[51]

Such are the scanty data on the δωρεά. It is noteworthy that the evidence belongs almost exclusively to the early Ptolemaic period, the third century B. C., especially to the time of Philadelphus. The documents of the second century thus far disclosed do not mention any δωρεαί. The silence of the Tebtunis papyri can of course be explained by the supposition that the territory of Tebtunis contained no δωρεαί, but the silence of P. Paris 63 is more significant, although we may suppose that in the enumeration of the different classes of landholdings, the δωρεαὶ are included in the lands held by the strategi and other more influential officials. Nevertheless the fact remains that the name δωρεὰ is not applied to these lands. It seems therefore as if the δωρεαὶ were peculiar to the reign of Philadelphus and that after him the institution either died out or assumed a different form.

The correspondence of Zenon throws fresh and abundant light on the δωρεαὶ both as regards their legal status and their economic management. In P. Z. 36 (year 31), cf. P.Z. V, p. 19, no. 36 (a), in a loan-contract between some peasants and Zenon we read (l. 4 ff.): ἐδάνεισεν Ζήνων Ἀγρεοφῶν[τος]/[Καύνιος τῶν περὶ Ἀπολλώνιον τὸν διοικητὴν ὁ προσταθε]ὶς ἐν ταῖς Μ (μυρίαις ἀρούραις) ταῖς ἐν Φιλαδελφείαι δεδομέναις ἐν δωρεᾶι Ἀπολ(λωνίωι) ὑπὸ τ[οῦ βασιλέως] and the same expression is used in two letters from peasants, one addressed to Apollonius, the other to Zoilus the oeconome (P. Lond. Inv. 2090, l. 1 foll.: οἱ γεωργοὶ . . . ἐκ κώμης Φιλαδελφείας τοῦ Ἀρσινοείτου νομοῦ ἐκ τῶν σῶν μυρίων ἀρουρῶν and P. Lond. Inv. 2094, l. 1: οἱ γεωργοὶ . . .ἐκ κώμης τῆς Φιλαδέλφου ἐκ τῶν μυρίων ἀρουρῶν). The expressions used in these papyri for describing the estate of Apollonius leave no

[51] I maintain my belief in the historical kernel of the story of Josephus, the farmer, which was told at some length and with some details, partly invented and partly borrowed from the Bible, by Flavius Josephus, A. J., XII, 4; cf. Cohen, *De magistratibus Aegyptiis*, p. 98 ff. There is no contradiction between the data of the inscriptions and papyri and those of Flavius Josephus. Palestine in the story is treated in the same way as Telmessus was treated by Euergetes I; the only difference is that for the δωρεὰ of Palestine the holder paid a tribute which equalled the revenues of the province formerly paid by the official representatives of the land.

doubt about the position occupied by Zenon in Philadelphia: he is the manager for Apollonius of the estate given to Apollonius by the King. Furthermore the documents describe the estate as a grant of 10,000 arurae of land in the territory of Philadelphia.

It reminds us of one of the P. Petrie which never has been understood. I mean P. Petrie II, 42 (a),—the well known appointment of Theodorus, the chief engineer of the Arsinoite, of which I have spoken above in chapter III. This document runs as follows: Κλέ]*ανδρος οἰκο*[*νό*]*μοις νομάρχ*[*αις*]/*βασιλικοῖς γραμματεῦσι φυλα*/*κί*[*ται*]*ς μυριαρούροις κωμάρχ*[*οις*]/ *κωμογραμματεῦσι χαίρειν.*/ *ἀπολελοίπαμεν Θεόδωρον τὸν ὑπαρχιτέκτονα πρὸς τῆι φυλακῆι*/ *τῶν χωμάτων καὶ ταῖς ἀφέσεσιν*/ *ἐντειλάμενοι αὐτῶι καὶ τὴν ἀνα*/[*βολὴν τῶν ἐ*]*ν* [*τῶι νομῶι χωμάτ*]*ων* (the supplements in the last line are mine)—i. e., "Kleandrus to the oeconomi, the nomarchi, the royal secretaries, the police, the ten thousand arurae men, the komarchi, the village secretaries, greeting. We have left (i. e., appointed) Theodorus the second engineer to guard the dykes and the sluices having entrusted to him also the construction of the dykes in the nome." The enumeration of the officials is characteristic. First the oeconomi, the managers of the economic affairs of the nome, then the nomarchi, of whom we shall speak later on, and then the royal secretaries,—all officials of the nome who had to do with the management of the land. After them the police officials in general, and finally the myriaruri, the comarchi and the village scribes, the officials of the territories of which the nome consisted. It should be noted that the toparchi and the secretaries of the *τόποι* are not mentioned.

It is evident that the *μυριάρουροι*, the holders of the *δωρεαὶ* of ten thousand arurae, rank with the village administrators, responsible like the comarchi and the village-secretaries for a territory which corresponded to the territory of a village. It is exactly this position which the R. L. assign to the *δωρεά*: the territory of a *δωρεὰ* corresponded or rather may have corresponded to the territory of one or more villages. It is evident also that under Philadelphus and Euergetes, the myriaruri formed a class that was very numerous in the nome, and at the same time they were situated above the regular village administration.

Moreover, the title myriaruri permits us to grasp the military character of the royal gifts since the terminology is based on the cleruchic terminology. Along with the δεκάρουροι, the εἰκοσάρουροι and the rest up to the ἑκατοντάρουροι (the holders of ten, twenty, and up to a hundred arurae), we have then a much higher class of cleruchi, the ten-thousand-aruri. In the case of both the cleruchi in general and the myriaruri, the grant of land is a royal gift specified as such of course only in the case of the myriaruri. But the idea of the cleri as royal gifts is common to the Hellenistic period; see, e. g., Phoin. Meg. fr. 4 (Αὐλητρίδες): a hetaera lived with a soldier or officer who convinced her "that he will receive a δωρεὰ from the King. And this he repeated over and again. Now because of this δωρεὰ of which I am speaking this scoundrel had me a whole year for nothing (δωρεάν)."

If we try to define more closely the legal position of these grants of land, of these gifts of the King, we find first of all that the grant had a purely personal character. This personal character is emphasized by the R. L. ὅσοι ἐν δωρεᾶι . . . ἔχουσι κώμας καὶ γῆν as well as by the denomination of the δωρεαὶ by the individual name of the holder: Ἀπολλωνίου, Χρυσέρμου, Καλλιξένους etc. It is certain therefore that the δωρεαὶ were not hereditary but personal holdings, usually associated with the high position occupied by the holder in the military or civil administration of the kingdom. Note that the δωρεὰ of Apollonius is constantly specified as the δωρεὰ of Apollonius the dioeketes. As a personal grant of the King the δωρεὰ could certainly be taken back by the King at any moment. If Chrysermus kept his δωρεὰ for a long time it was because of his constantly good relations with the Kings, of his being permanently in the royal service. The question arises as to whether the possession of δωρεαὶ was dependent on service for the State or not, that is, whether the man who lost his commission was deprived automatically of his δωρεὰ or not. This question so far remains unsolved.

There is no doubt that the Kings regarded the δωρεὰ not as the property of the temporary holder but as their own property, as a piece of the royal land (γῆ βασιλική). This is manifest from one of the letters of Apollonius to Zenon. In

PLATE III

P.Z. 27 (year 30) he writes as follows: "The King has ordered us to sow the land twice. As soon as you gather the crops, irrigate the soil immediately by hand, or if that is impossible, allow as many tollenos (shadoofs) as possible to be operated and irrigate the land, but don't keep the water on the fields longer than five days. After irrigation sow the three-months wheat. Write me when you have succeeded in gathering the first crops."

Edgar in his comment on this papyrus assumes that the King is speaking of a piece of royal land. But this piece of land is really the ten thousand arurae which Apollonius had received from the King. The King intends to intensify the productivity of the Egyptian soil and starts with the land which he gave to this intelligent and zealous servant. Apparently he regards the land as his own, managed but not owned by Apollonius. The letter, by the way, also throws some light on the question of the intentions of the King in granting such large parcels of land to his nearest assistants. It seems that the holders of the δωρεαὶ had no more than a personal use of the land which remained the property of the State like the cleruchic land.

Nevertheless the holders of the δωρεαὶ were not in exactly the same position as the holders of the cleruchic land. A grant of ten thousand arurae in the territory of a village meant that the village came under the rule of the holder of the δωρεά; the village, so to say, was itself a part of the grant. I do not like to speak of patronage in this connection as it implies a measure of self-government in the village; I would prefer the word responsibility, the holders of the δωρεὰ being responsible for the proper administration of the village as well as for the proper management of their clerus. We shall see later the form this responsibility assumed in the collection of taxes and in the tillage of the soil. Let me speak in this chapter of the administrative side only. We do not know whether or not the δωρεὰ of Apollonius was confined to the territory of the new village of Philadelphia exclusively. We shall see that Philadelphia in its economic life was closely associated with other villages of the neighborhood, Hephaestias, Tanis, perhaps Arsinoe, Νεανίσκοι and others. But it seems that the relation of Apollonius to these villages was of a purely economic nature

and did not imply any interference on his part in the administration of these villages. An interesting hint at the relations between Philadelphia and the above mentioned villages with their population of *βασιλικοὶ γεωργοί*, may be gathered from the fact stated in my second chapter, that Philadelphia was later the head of a toparchy, including thus in its jurisdiction, from the administrative point of view, many other villages. We may expect some new light on this point from the publication of the documents collected at Tanis by Grenfell and Hunt in 1900.

But in Philadelphia itself Apollonius and his manager Zenon occupied quite a peculiar position. In the scores of letters of Zenon we find no mention of the regular village administration of Philadelphia, the komarchi, the village secretaries. All the functions of these administrative officers were therefore concentrated in the hands of Zenon. This is shown first of all by the fact that Zenon is the chief of Philadelphia's police force, the *φυλακῖται*. We have no mention of the village-epistates in Philadelphia, the official who plays such a prominent part in the contemporary documents of Magdola; the duties of this official were fulfilled by Zenon. This is stated definitely by many papyri. In P.S.I. 570 of the year 34 Zenon is asked to send some *φυλακῖται* (policemen) or perhaps *the φυλακῖται* who are under his orders ([*τοὺς ὑπό σε φυλ*]*ακίτας*). In P.S.I. 359 (year 34) Philiskus, the oeconome, requires from Zenon the delivery to his agent of a man who had fled to Philadelphia with a donkey and some sacks. In P.S.I. 366 and 367, Damis the nomarch asks Zenon to investigate the theft of a cow by two peasants, and to deliver the criminals to a policeman sent by Damis. In P.S.I. 384 (year 38) Zenon is asked to send back to Alexandria a tailor who had found refuge in Philadelphia in the house of his brother, one of the employees of Zenon. This man was a debtor to the State in Alexandria. In P.S.I. 419 (cf. 359), three *ξένοι*, i.e., men who did not legally belong to the population of Philadelphia, are found to be in prison in Philadelphia. They ask Zenon to release them and to give them the opportunity of appearing before the court of Philiscus. In another instance Zenon arrests the treasurer of the beer-shop of Philadelphia (P.Z. 33, year 31). Finally Zenon has at his disposal both local

police-agents (φυλακῖται) and native police-soldiers (μάχιμοι) as stated in P.S.I. 353 (year 32). These are functions identical with those of the epistate of a village, purely administrative and in no way judicial functions.

Zenon and his predecessor Panakestor were also responsible for the different kinds of compulsory labour due to the State by the population of Philadelphia. In P.S.I. 493 (year 28), the administration of the estate is asked to compile a list of men subject to labor in the salt monopoly. In P.S.I. 498 (year 29), Zoilus the oeconome demands of Panakestor a list of a certain class of ὑποτελεῖς with their families residing in the village. Of a similar nature also is the fragmentary letter P.S.I. 353, addressed to Zenon. Thus the duty of the registration of the population of the village as far as this population was in the service of the State fell to Zenon as it fell to the village-secretaries in other villages.

Finally, Zenon, like the comarchi and the village-secretaries, is responsible for the payments of the inhabitants of the village due to the State. In P.S.I. 510 (year 30), Zenon is asked to exact from Teos the bee-keeper his φόρος for seven months; Teos was ascribed to Busiris in the Herakleopolite nome. Another document of the same kind is P.S.I. 591, where Zenon appears as an intermediary between a certain Massichus, from whom a certain sum was exacted by Philiscus the oeconome, and Apollonius the dioeketes and Diotimus the hypodioeketes. The same functions were exercised by Zenon in the Memphite δωρεά. In P.S.I. 440, he is asked by the sacred slaves, cat-feeders (αἰλουροβοσκοί), of Bubastis at Sophthis in the Memphite nome, to free them from the compulsory labour which was imposed on them by Leontiscus, the chief of police in the village.

A peculiar relation existed between Apollonius and some Arabs in the service of Apollonius, residents of the territory of Philadelphia. We shall come back to them later on, but in P.S.I. 538, their representatives, the δεκατάρχαι, ask Apollonius for permission to have a chief of their own, an epistates, and they ask him also to write to Zoilus the oeconome to register this epistates as their chief.

So far we have dealt with the native population and their relations to Apollonius and to Zenon, but this population was

not the whole population of Philadelphia. Gradually some Greeks, not natives, came to settle at Philadelphia. In the year 34 (P.S.I. 513) some officers of the Ptolemaic army received parcels of land in Philadelphia. In P.S.I. 536, cleri in Philadelphia were assigned to some horsemen (ἱππεῖς) by order of a certain Dikaeus. In these assignments Zenon, as the man responsible for the whole territory of the village, took an active part, here again fulfilling the duties of the village administration.

Moreover, others than soldiers received land grants in Philadelphia. Such was a certain Artemidorus, without doubt identical with the housekeeper (ὁ ἐπὶ τῆς οἰκίας) of Apollonius. He sends to Zenon in the year 33 a very interesting letter (P.Z. 42) which was written in Sidon where Apollonius with Artemidorus in his train was accompanying the Queen, probably Berenice, to her royal husband in Syria. Artemidorus informs Zenon that he will soon come to Philadelphia, asks him to make all necessary preparations and meanwhile to take care of his house and land. The house is almost ready, the roof only is not yet finished. The land is sown, and Artemidorus is anxious about the harvest. Some money is due to Artemidorus from his sesame and croton. He possesses some cattle: draft cattle (ζευγάρια) i.e. oxen and cows, calves or pigs (ἱερεῖα) and geese. He is coming in a horse carriage, and asks therefore that barley be purchased for the horses and honey for himself. Thus we see the complete and extensive husbandry of a civilian not an officer of the army.

Men of similar standing are enumerated in the interesting document P.S.I. 626 (no date), along with natives who had emigrated to Philadelphia from other parts of the country; the document is a list of payments for the cattle owned by these persons. In this document we meet a man from Soli, in Cilicia, one from Lacedemonia, another from Kalynda in Caria, Jason by name, of whom more later, one native of Sicily, one of Cyrene, and, of course, Zenon himself.

Of the relations existing between these Greek landholders and Apollonius, we are ignorant. The question is, to what extent, in their relations with the officials, were they dependent on the administration of the village concentrated in the hands of Zenon.

Thus Apollonius, after having received his large clerus in Philadelphia, became automatically the head of the village of Philadelphia. To his care all the land assigned to the village and all the population of the village were entrusted. In the next chapters we shall try to define with more precision the relations between the holder of the δωρεὰ and the population on the one hand, and the relations between the holder and the regular administration on the other.

So far we have discussed the δωρεὰ of Apollonius at Philadelphia. But Apollonius possessed another δωρεὰ in the Memphite nome. What do we know about this δωρεά? It is hard first of all to locate this δωρεά. We shall see later on in dealing with the different departments of Apollonius' husbandry that the management of this second estate of Apollonius did not differ very much from that at Philadelphia. But there are insurmountable difficulties in finding out what territory this estate included. Apollonius and Zenon have important economic interests in the city of Memphis. A large woolen factory seems to be situated in the city (P.Z. 24, 30). Payments are made in barley to the πρεσβύτεροι of Memphis, all men with Greek names, P.S.I. 627. Goods destined for Apollonius are sent from abroad not to Alexandria but to Memphis, P.S.I. 594, 5 (cf. 615 and 619). Apollonius has a special interest and takes special care of the dykes built by a contractor in and near the city of Memphis (P.S.I. 488), and in the letter which this contractor sends to Zenon together with his offer to undertake the work, he writes of himself as receiving a salary from Zenon and thus depending on Apollonius and Zenon. The fact that the offer to undertake the work of keeping the dykes in order, at Memphis is addressed, not to the regular administration of the nome but to Apollonius directly, and that the contract between Apollonius and the contractor is subject to the subsequent approval of this administration, the oeconome and the engineer, is indeed peculiar. We know from the Petrie papyri that the contracts with the contractors for work done on dykes and canals were concluded by a special commission consisting of the officials of the nome. And actually how could the dioeketes manage to conclude all these contracts himself? There is no other way to explain this contract than

by assuming that the work was done for Apollonius in the first instance and that the State entered into it only as the controlling power.

Moreover Apollonius has a special interest in the religious life in Memphis. P.S.I. 531 is a letter of the priests of Astarte in Memphis asking for help in getting some oil and κῖκι on the same conditions as those granted to the Carians and Hellenomemphites. It may have been the duty of Apollonius as a dioeketes to grant the oil. But what is the reason for this document being in the archives of Zenon if not because the private interests of Apollonius were involved in this request? I am reminded in this connection of the request of the priests of Aphrodite-Isis (P.S.I. 328) who probably resided not in the Arsinoite but in the Memphite nome.

On the other hand we have some documents testifying to a special connection of Zenon with Sophthis, a village in the Memphite. I have quoted already a document about the cat-feeders of Sophthis (P.S.I. 440). Another document speaking of the same village is P.Z. 25 (year 30). A slave-girl, Sphragis, was robbed on her way to Sophthis from Memphis or perhaps from Philadelphia, and asks Zenon to give an order to Leontiscus, the chief of police at Sophthis to restore to her the things stolen from her. Another village of the same nome, Moithymis or Moiethymis, is also frequently mentioned in the correspondence (P.S.I. 341, 10; 346; 354; 587, 4; 629, 6; P.Z. 52). It must have been situated near Sophthis, as we hear in P.S.I. 346 of the same Leontiscus being chief of police in Moithymis also. Apollonius seems to have owned in Moithymis large herds (P.S.I. 346 and 354) and arable land (P.S.I. 629). I do not know to what part of the nome to assign the village Taitaró situated certainly in the Memphite nome; Apollonius is asked by the peasants of this village to build a dyke for them. Nor do we know the exact situation of Taskry of the same nome (P.S.I. 380, comp. 374) which perhaps formed a part of Apollonius' δωρεά (P.S.I. 682).

No definite conclusions can be drawn from the evidence quoted above. I am inclined to assume that Apollonius had some land granted to him in the neighborhood of Memphis and held at the same time Memphis itself as a δωρεά. But I fully

realize how casual such treatment of the ancient capital of Egypt might appear, were it not for an intentional degradation of this city by Philadelphus and for an attempt at its Hellenization or internationalization (see the Φοινικαιγύπτιοι, the Κᾶρες and the Hellenomemphites of P.S.I. 531 and the Συροπέρσαι, the Καρικὸν and the Hellenion of P.S.I. 488; cf. P. Lond. I, p. 49 and Wilcken, *Grundz.*, p. 18).

VI. THE ESTATE OF APOLLONIUS AT PHILADELPHIA

Preparation of the Estate for Cultivation

A lively correspondence with the different persons associated with the δωρεὰ of Philadelphia was maintained by Zenon during all the time of his residence there. Moreover we possess his correspondence with Panakestor of the year 28 and especially of the year 29 as well as the letters of Panakestor for the same period which Zenon as his successor found there and kept in the archives of the estate. Our information therefore, even for the years 28 and 29, to say nothing of the following years, is very good.

As this correspondence shows, in the years 28-30 much important work was done on the estate; of special importance were the extensive works designed for the regular irrigation of the land, and buildings erected in the village itself. Regular husbandry was of course carried on at the same time, but we hear most of the constructional activities mentioned above.

One of the most instructive documents of this period, one which permits us to gain an interesting insight into the life of the estate in the year 29, is P.S.I. 500 (cf. 501 and P.S.I. VI, p. XVII; the same men, Panakestor, Maron, Damis, Etearchus, Sostratus, are mentioned also in P.S.I. 613). The letter bears the address, "To Zenon," and the docket, "Maron to Zenon." "About Diodorus and the constructions and about Damis and the land. Year 29, 14 Daisios, in Alexandria." At the time of this letter therefore Zenon was in Alexandria. "Maron to Zenon greetings. If you are in good health and everything else is going according to your wishes, all is going as I would have it. I am in good health myself. Apollonius writes to me in his memorandum that the affairs of the constructions are in the hands of Diodorus and those concerning the land in the hands of Damis. The constructions are not yet finished, but the gathering of the crops, the cutting of brushwood, the planting of sesame, the firing, the planting of kiki (are going on or are finished). All the expenses for the last operations go through the hands of Damis and Etear-

chus and their brother Sostratus, and the day-expense is sealed by them. But Diodorus *contradicts every day more than is reasonable* (this phrase is then cancelled by the writer) makes difficulties all the time, but nevertheless the expense is registered daily. About the rest Jason and Panakestor himself, to whom I wish a happy arrival, will inform you. Be in good health. Year 29, Pachons 14."

Apparently Zenon is still in Alexandria in the month Daisios of the year 29 and he is expecting the arrival of Panakestor in Alexandria. Maron meanwhile writes him a letter to explain the situation in the estate after Panakestor had left. Important work is going on, both constructional and agricultural. In this work the regular administrative officials of the estate cooperate with two persons: with Diodorus for the constructions, and Damis for the work on the land. Damis and his brother Etearchus are well known as the nomarchi of the district where Philadelphia was situated. This implies that Diodorus was not an agent of Apollonius but a kind of state official. The duties of these two men are to supervise the expenditures; they register the expenses daily and testify to the exactness of the accounts by their seals.

Diodorus controls the building activity in the estate. The character of these buildings is not defined in the papyrus; it says simply ἔργα. An answer to the question as to what kind of building activity is meant, is given by a Zenon papyrus and by the papyrus Lille 1. The first document (P.S.I. 496, comp. Edgar in P.S.I. VI, p. XVI) of the year 28, speaks of constructions in the village itself, certainly houses and other buildings of a similar kind, as ἔργα λίθινα, πλίνθινα and ξύλινα are mentioned (stone, brick, and wood work). The second document (P. Lille 1) of the year 27, remains still unexplained. The heading says that the writer of the document is a certain Stotoetis the secretary (ἀντιγραφεύς) and that the document is addressed to Apollonius. The document is countersigned by Diodorus. The body of the document contains a chart of a plot of land of 10,000 arurae with indications of the dykes and canals to be constructed. The plot has a quadrangular form (πλινθεῖον or πλίνθιον); it is measured and subdivided according to the technique with which we are familiar from the Roman

Gromatici.[52] The text gives a description and an estimate of the work of constructing the dykes and the canals indicated on the map. Moreover there are two estimates of the probable expense according to different conjectures as to the time required for completion of the work. An appendix deals with an estimate of the cost of maintenance of the constructions already existing on the plot, subject to verification and approval by the engineers and the royal secretaries. All the estimates are rough and merely approximate. The writer says that they will be specified in detail in special contracts (μισθώσεις); in one of the two estimates the writer says, "we shall indicate this in the contract, i.e., the measurements and the supplementary expense;" and in the second estimate, "it will be included in the contract, when we know the measurements of the land in these places and the length of the sides." The last lines of the papyrus contain the approval of the estimates by Apollonius and a brief postscript by someone else, probably Diodorus, who describes his journey at first in the company of Apollonius and afterwards alone, from an unnamed place to the Labyrinth and to the city (ἡ πόλις).

Edgar was the first to see that the Lille papyrus deals with the estate of Apollonius, and that the Apollonius named therein is Apollonius, the dioeketes.[53] I think that his hypothesis is perfectly correct. The presence of Apollonius on the spot, the active part taken by him in the whole affair and his written approval show that he had a particular interest in the plot of 10,000 arurae. Furthermore the Apollonius of the papyrus is a great man: note the reverence with which Diodorus speaks of him. Moreover, the size of the plot coincides with the size of Apollonius' δωρεά, and the man who acts as financial supervisor bears the same name as the supervisor of some works on the estate in the year 29. The coincidence is so complete that there is not the slightest doubt that the Apollonius of our papyrus is Apollonius the dioeketes, that in the year 27 he went to inspect his grant and with the collaboration of the

[52] See Wilcken, *Arch.*, III, 218. In P. Giess. 15, 2, early second century A. D., such a map is called δεῖγμα; cf. P. Tebt. I, 82 and P. Meyer, P. Giess., II, 53.

[53] Edgar, *Annales*, XVII, 211 and III, 34.

local administration, to formulate a plan and an estimate for the complete irrigation thereof. Who the author of the plan and estimate approved by Apollonius was, we do not know. He was the secretary of one of the local officials, but of which one? The greatest probability speaks for the oeconome, the chief manager of the economic life of a nome.

Thus Apollonius' new estate was a πλινθεῖον of 10,000 arurae, not wholly desert since there are some dykes and canals on it, not entirely uncultivated and not devoid of population; that there were cultivators there I shall show later on; but it was not yet fit for intensive cultivation. A series of water-works was needed for making the plot cultivable in its entirety. How this improvement of the estate was to be achieved is shown by the chart and the estimates of P. Lille 1.

The important work of systematic irrigation of Apollonius' estate was decided upon in the year 27. Who was to carry it out? In P. Lille 1 it is foreseen that minute calculations and estimates would have to be covered by special contracts. Therefore special contractors are regarded as necessary for carrying out the work. The publishers of the papyrus and most of the scholars who have dealt with it have generally supposed that these contractors were business men who took over the construction of the dykes and canals for certain payments. In this way for example the constructions planned and supervised by the engineers Kleon and Theodorus had been carried out. These contracts were concluded between a special commission of government officials and the contractors; the conditions were payment of half the sum in advance to the contractor, and furnishing of tools and implements. Apparently the same method was projected in the document, P. Lille 1. On the verso l. 4 ff. where the author speaks of the works already existing on the plot, he says that the cost of the existing works, if they fit in with the new system, should be deducted from the sum which was due to the μισθουμένοις, the contractors. But in the second version of the same clausula the words are slightly modified and instead of οἱ μισθούμενοι appear οἱ γεωργοί.

Starting from this reference to the peasants or farmers of the land (γεωργοί) Wilcken supposed that the work was given out not to special contractors but to farmers of the land and

that the obligation of carrying out the work was to be included in the contracts of lease to be concluded with the local peasants.[54] Such obligations are met, he says, sometimes in land lease contracts of the Roman time. I think that the hypothesis of Wilcken is not the most probable. The Roman contracts never speak of new works but always of the maintenance of the old ones, and the reference to peasants in P. Lille 1 does not imply that they were the contractors. This reference means that the cost of the old constructions should be deducted either from the sum due to the contractors or, which amounts to the same thing, from the pay of the peasants who worked for the contractors either as subcontractors or as workmen (σώματα); these peasants, according to the general rule prevailing in Egypt, rendered compulsory but paid labour.

The evidence which is furnished by P. Lille 1 is confirmed and completed by some Zenon papyri mainly of the years 29 and 30. In P.Z. 20, Zoilus the oeconome asks Panakestor to send Komoapis the engineer to Tanis where a dyke needed repair. Komoapis therefore must have been the engineer who managed the irrigation works at Philadelphia. The same Komoapis, to whom in one papyrus is given the title of engineer (Edgar, P.Z. 30, Introd.), reports to Zenon in the year 30 (P.Z. 30) of his having concluded a series of contracts (διάπρασις) with different persons for irrigation works to be built at Philadelphia. A receipt of one of these contractors of the year 29 is preserved in P.Z. 23. The type of the contract and the methods of payment are identical with those of the contracts concluded by Kleon and Theodorus.[55] Under Komoapis, or perhaps along with him, worked another engineer and contractor, Petechon, also of Egyptian origin. Petechon appears as a general contractor (ἐργολάβος) in the papyrus mentioned above (P.Z. 30). He is mentioned also in a papyrus of Florence (P.S.I. 571, 4) along with a certain Pyron (cf. P.S.I. 418) and twice in the Petrie papyri. One of these letters, of the year 30 (P. Petrie II, 13, 4—III, 42(c), 6), is from Klearchus to the chief engineer Kleon with an appended letter of Petechon,

[54] Wilcken, *Arch.*, III, 218.

[55] P. Petrie III, p. 117 ff., the contracts of Theodorus; P. Petrie III, 42 (F), year 33; II, 18 (a) and (b); III, 42 (G), 7.

ὁ ὑπαρχιτέκτων or sub-engineer. A part only of this letter is preserved. This part deals with the letting out of some works between Philadelphia and Patsonthis. To carry out these works Petechon was appointed by Apollonius the dioeketes himself, ἐ]φ'ὧν ἡμᾶς καταλείπει Ἀπολλώνιος ὁ διοικητής; they were, of course, works for the δωρεὰ of Apollonius. The letter of Petechon is scornful. He reproaches Klearchus and Kleon with their quarrels for which the responsibility will fall upon him, Petechon (διὰ τὴν ὑμετέραν ἀψιμαχίαν ἐμ[ὲ] ἐν ἐγκλήιμασι γ[ίνεσθαι]) and adds that until the dull mind of Klearchus grasps the situation the works may suffer. Such language is only comprehensible if Petechon was protected by the authority of Apollonius. In the same year Petechon works in the same places as stated by P. Petrie II, 6—III, 42, 7. This document shows the kind of works Petechon was engaged upon: first the great canal of Kleon, which irrigated sandy land (ὕφαμμος γῆ), and a complicated drainage system for the recovery of marshy land (τενάγη) by means of ditches (ὀχετοί). The land which was salty (ἀλμυρίς) was of course hopelessly unproductive (P.S.I. 639).

The whole system of work within the limits of Apollonius' estate lies therefore clearly before our eyes. The work is done under the supervision of the regular engineers of the nome, Kleon and his subordinates. The manager of the region covering the estate of Apollonius is Komoapis. The general contractor and one of Kleon's staff of engineers as well, is Petechon, to whom the works in and around Philadelphia were given out by Apollonius himself. Petechon in his turn gives out parts of the work to small contractors some of whom were local peasants; but he works also by means of compulsory labour as is shown by P.S.I. 337, where a certain Horus, dekatarch or foreman of a ten, receives the same sum for the same amount of work as the contractors in other papyri, namely 4 drachmae.

The same system of irrigation work seems to prevail in the Memphite δωρεὰ as well. In the year 28 Addaeus writes to Zenon that the peasants of Taitaró are asking that irrigation work of the same kind as that done in other parts (of the δωρεά?) should be carried out on their lands, according to the

promises of Apollonius. Addaeus urges that the work be begun at once, as later on it would cost more (P.S.I. 486). I have dealt already with the interesting document P.S.I. 488 of the same year. The contractor who here addresses Zenon and Apollonius and wants the work on the dykes to be given to him, proposes exactly those conditions with which we are familiar from the other papyri quoted above. As in the P. Lille 1, he makes his work subject to the approval of the oeconome and the engineer. He is probably already working somewhere in the neighborhood, as he informs Zenon that he is busy in registering (ἀπογραφή) the σώματα, i.e., workmen furnished by the population.

If it is now asked, who paid for the irrigation work done on the estates of Apollonius, I must say that I have no answer to this question. We must not forget that the δωρεὰ of Apollonius at Philadelphia consisted of two parts: his clerus, the 10,000 arurae, and the territory under his control, that is, that of the village of Philadelphia and perhaps of other villages. In the documents quoted above Apollonius is busy in organizing work not only in Philadelphia but as far as Tanis and Patsonthis. That is probably the reason why the work done at Memphis, although given out by Apollonius, was paid for by the treasury while the work done at Taitaro was probably paid for by Apollonius himself.

Many data in the Zenon papyri allow me to believe that the work on the 10,000 arurae was paid for either by Apollonius alone or according to a complicated system whereby certain revenues from the δωρεὰ were used in payment for the construction of the irrigation works. The fact that it is Apollonius who accepts the estimates of the work to be done, that the work is given out by his agents and the state engineers, that Horus in P.S.I. 337 is paid by the administration of the estate, and many other details lead me to believe that it was Apollonius who paid for the work. On the other hand the supervision of the work by the officials of the nome, especially by the engineers, and the presence of two officials in the estate supervising the expenditures for irrigation and agricultural works, show that the State took an interest in the work and probably participated in one way or another in financing it.

I do not deny that sometimes parts of the irrigation work were given out to the farmers of certain parcels of land; for example in P.S.I. 577, Dionysius the farmer of 150 arurae of unirrigated land (ἄβροχος γῆ) is performing some work of reclamation: κάθαρσις or ὑλοτομία (clearing the land of brushwood) and περίχωσις (constructing dykes). However, this is not the main work of reclamation but a kind of supplementary work made possible by the fact that the main work was already done. The same situation is found in P. Lond. Inv. 2094, where peasants are working on a δρυμὸς which is situated within the boundaries of the land leased by them from the 10,000 arurae of Apollonius.

I must emphasize the fact that almost the same relations existed between the State and the cleruchi on whose land irrigation work was carried out by the State. Among the contracts of the engineer Theodorus, two documents (P. Petrie III, 43, 2, col. I and II) deal with the lands of the cleruchi. In these contracts before the paragraphs dealing with the warrants, the payment of money and the implements, and after those dealing with the description of the work to be done, there is a fragmentary paragraph, which does not appear in the rest of the contracts. The conditions prescribed by this paragraph are as follows, the beginning being missing: "with the condition that they should pay half of the expense for the work in the third year, the money to be taken from the price of the oil seed which they will pay into the treasury. If they will not deliver their oil seed they shall pay 1½ times the amount when the money is exacted from them." The publishers of this papyrus suppose that those meant in this paragraph are the members of the commission who gave out the work. But what had the commission to do with the oil seed! Did the members of the commission necessarily deliver oil seed to the State? We know from the R. L. that the φορτία ἐλαικὰ were delivered by the producers, who received the price of this seed in money. Now the producers of oil seed in our papyrus are certainly the cleruchi, holders of the lands which were to be irrigated. I presume therefore that these cleruchi were the payers and that the obligation to pay the expense of the work

done on their lands was theirs. The money for this payment was the income which the cleruchi expected from the newly irrigated or drained land. It is not incidental, as we will see later, that the cleruchi covered the expense with their revenues from the oil seed; the oil plants were the best crop to be raised on newly irrigated or drained lands. It is noteworthy also that the cleruchi paid regular taxes for the maintenance and guarding of the water-works on their fields (see, e.g., P.S.I. 344 of the year 30). According to the order of Apollonius quoted in this papyrus they were treated as the peasants were, *καθότι καὶ παρὰ τῶν γεωργῶν* and the tax was paid from the revenues (*γενήματα*) of their fields, which revenues were under suspension as long as the payment was pending.

Let me now quote again P.S.I. 500. We remember that along with Diodorus, the supervisor of the expenditures for irrigation works, Damis the nomarch is working on the estate. His duty is the control of the *ξυλοκοπία* and the *ἐμπυρισμός*, of planting the oil plants and gathering the crops. *Ξυλοκοπία* and *ἐμπυρισμὸς* are works making the land, already drained, fit for cultivation. Large tracts of land in the neighborhood of most of the new villages were *δρυμοί*, i. e., pieces of the lake shore overgrown with brushwood, reeds and weeds. There are scores of references to *δρυμοὶ* in the Fayum papyri.[56] Almost every new village in the Fayum had its *δρυμὸς* or *δρυμοὶ* and its shore land, *αἰγιαλός*.[57] Another name for brushwood land was *γῆ ξυλῖτις* or *ξυλίς*, see, e. g., P.S.I. 502, 28 where *γῆ σησαμῖτις* and *ξυλῖτις* are measured by Panakestor. In P.S.I. 631, col. II, l. 1, and P. Lille 5, l. 13, land sown with grass was formerly *δρυμός*. In P. Lille 5, l. 19, land sown partly with sesame was formerly *ξυλῖτις*; in l. 23 of the same papyrus are mentioned 200 arurae of land where brushwood ought to be cut (*ξυλοκοπία*). In P. Petrie II, 39 (a), seed of croton was delivered for sowing some *γῆ ξυλῖτις* near the shrine of Isis of Attinas. The most common kinds of brushwood in Egypt were willows (*ἰτέα*) and tamarisk (*μυρίκη*), the latter used frequently for the dykes and bridges. For

[56] The evidence on the *δρυμοὶ* was collected by Calderini, *Aegyptus*, I, 56 ff.

[57] I remind the reader of such names as *Πτολεμαὶς Δρυμοῦ*. Philadelphia also had its *δρυμὸς*. P. Gen. 81, 29.

example, a growth of tamarisk is mentioned in P. Magd. 4, year 25 of Euergetes, where some thieving shepherds hid swine stolen by them in a tamarisk growth (l. 3, according to my supplements, says: *καθ]είσαντες εἰς τὰ μυρίκινα*,—having hidden (placed) them in a tamarisk growth). For making such land after drainage fit for agriculture or for pasturage, it was necessary first to cut the wood, *ξυλοτομεῖν* (or *ὑλοτομεῖν*, see P.S.I. 577, l. 7 ff., *τήν τε γῆν ἐ[καθάρευσα]/ὕλης μεστὴν καὶ περιχώσας ἐπότισα*,—I cleared the soil which was full of brushwood and irrigated it after having constructed dykes). In P. Lond. III, 179, *ὑλοτομία* is combined with *θρυοκοπία*, cutting of reeds. The second operation was to eliminate the stumps by burning them. This is the operation of *ἐμπυρισμὸς* mentioned many times along with *ξυλοκοπία* in Panakestor's correspondence of the year 29 (P.S.I. 323, 338, 339, 499, 506, 560; cf. P.S.I. VI, p. IX). *Ἐμπυρισμὸς* was probably done a year after the *ξυλοκοπία* (P.S.I. 560: *ἐμπυρισμὸς τῆς περυσινῆς*, i.e., burning out last year's land). One of these operations is mentioned in P.S.I. 667, cf. 564; a girl (*παιδίσκη*) working in the estate writes to Zenon that she is tired of dragging wood (l. 2 ff., *κεκ[μηκυῖ]α ξυλοφοροῦσα καὶ ἀλι[εύουσα]*)[58] but she does not like the prospect of going on strike, as was done by her companions (*οὐ θέλουσα ἀναχωρῆσαι*). It is to be noted that the land thus fitted for cultivation, especially the *ξυλῖτις*, was used by preference for planting oil crops, as such land probably gave abundant harvests of oil seed.

The facts quoted above allow us to understand P.S.I. 500. Damis supervises and controls the operations of cutting and burning, and those of sowing and planting sesame and kiki. According to the papyri quoted above brushwood cutting was organized in the same way as the building of dykes and the digging of canals, and was paid for by the administration of the estate. Therefore the part played by Damis in these operations

[58] I can hardly believe in M. Norsa's explanation of *ἀλιεύουσα* as fishing. Some kind of work on the newly gained land is certainly meant. Cf. the reference in one of the Cairo papyri, P.S.I. 629, Intro., to *πελέκεις ἁλιευτικοί*: one cannot easily fish with axes. An operation connected with tree cutting might have been called *ἁλιεύειν*. But I should suggest the reading, *ἀλί[ξουσα]*, i. e., dragging, piling, and gathering wood.

was to supervise the work and to secure the money necessary for it in the same way as was done on the cleruchic land, by supervising the planting of oil plants and by watching the harvest until the work done for the improvement of the estate was paid for by means of the delivery of oil seed to the public granaries. For the same reason Damis controlled the harvesting of other crops, especially wheat (*σίτου κατακομιδή*). This fact explains, by the way, the extraordinary growth of oil production in Egypt under Philadelphus, the introduction of the monopoly in oil and perhaps the restrictive measures on the importation of olive oil from abroad.[59] Thus the work of irrigation and drainage on the estate, as well as the work of preparation of the soil for agricultural purposes was paid for by the holder of the estate out of the products of the estate; and this explains the necessity for the State having two agents to keep detailed accounts of all the expenditures and of all the revenues of the estate as long as the work of improvement and irrigation continued. Such supervision was probably general on all the *δωρεαί*. The land of the *δωρεαί*, as I have already pointed out, was in no way private land; it remained *γῆ βασιλική*, and the State was not willing to leave the work on such land entirely in the hands of the landholders, lest the work should be neglected or performed in a way which was not profitable to the State.

Such was the situation on the land given to Apollonius as his clerus of 10,000 arurae. What part he played in the irrigation work of the territory of his *δωρεά* in general we do not know. I would suggest that the conditions were more or less the same, with the single exception that the money was paid from the treasury out of the revenues of the land, the land being farmed to the peasants of the villages of the *δωρεά*. I shall come back to this question in my next chapter.

After the land was once drained and irrigated, the watering from the canals, the operations of opening and closing the sluices, remained under the supervision of the general administration of the nome, that is, under the oeconome and, from the technical point of view, the chief engineer. The whole matter of reclamation of such large tracts of land was too vital to the

[59] See P. Meyer, P. Hamb. 24, Intro.

State to be left to the private management of the holders of the δωρεά. This point is fully illustrated by some Petrie papyri. In P. Petrie II, 13, 5—III, 42 (B) 1 of the year 29, Panakestor, the manager of Apollonius' estate, writes a sharp letter to Kleon.[60] Something has gone wrong in the small canal and the administration of the estate is helpless ([ἡμεῖς γὰρ] ἄπειροί ἐσμεν says Panakestor). Panakestor asks Kleon to come, but Kleon was busy and went straight to the Small Lake (Μικρὰ Λίμνη). Panakestor insists on Kleon's coming; he promises to give him men and tools, as there is danger that the land will remain unwatered. The letter ends with the following words: "if you won't come I shall be obliged to write to Apollonius that his land in the Limne is left alone (I read μονω[θεῖσα] which makes good sense whereas Edgar III, p. 14, note 1, reads μονωτάτη, which means that the land was exceptionally badly treated) and therefore remains unwatered, although I was ready to deliver everything which was required." Such conflicts between Panakestor and the administration were probably the reason for his being replaced by Zenon. Another document of the same kind probably is P. Petrie II, 13, 11—III, 42 (A) of the year 28. Here it is Zenon who writes to Kleon. He says that the water is high and that he is therefore obliged to open the sluices, probably without the special permission of the engineer (cf. II, 13, 9 and 10, also about opening the sluices).[61]

[60] Cf. Edgar, pt. III, 34.

[61] On the activity of Kleon and Theodorus see U. von Wilamowitz-Moellendorf, *Reden und Vorträge*, ed. 3, p. 361 ff.; A. Bouché-Leclercq, "Cléon," *Rev. d. études gr.*, XXI (1908), p. 121 ff.; Witkowski, *Epistulae privatae Graecae*, ed. 2, p. 1 ff.; K. Fitzler, *Steinbrüche und Bergwerke*, p. 57 ff.; M. Chwostoff, *Public Works in the Hellenistic Egypt, Volume in honour of V. Buzeskul*, Kharkoff 1914 (in Russian); Westermann, *Classical Philology*, XII, 426 ff. and XIV, 158 ff.; A. Calderini, "Ricerche sul regime delle acque nell'Egitto greco-romano," *Aegyptus*, I, 37 ff. No exhaustive or even good treatment of the irrigation work done by the engineers of Philadelphus exists. An investigation of the matter, especially from the technical point of view would be of great value. The independence of the estate as regards the maintenance of the irrigation works is shown by P.S.I. 421, no date. In this document the guards of the dykes (χωματοφύλακες) ask Zenon to give them their salaries and their rations of grain (ὀψώνιον and σειτομετρία). They end their letter with the usual threat: "Thus if you send us our food and salaries: all right. If not, we shall flee. We can stand no more!" The guards were

It is also worthy of note that Theodorus in his request for his salary promises "to work without reproach for the dioeketes" and for the man to whom the letter is addressed (P. Lond. Inv. 2089, l. 16). Who knows if the salary for which he applies is not private remuneration given to the engineer by Apollonius, the holder of the Philadelphia estate?

Such was the organization of the work by which a large territory around Philadelphia, and especially the 10,000 arurae of Apollonius' clerus, were transformed into good arable land, fit for cereals, vineyards, orchards, et cetera; the transformation of land hitherto in part a sandy desert, in part marshy land overgrown with brushwood and reeds, only some of which had been previously watered and drained by the construction of dykes and canals, primarily by the construction of the main canal, the canal of Kleon.

We easily understand why Philadelphus in carrying out this work should proceed by granting large plots of land to his best assistants, who were at the same time important officials of the State. The bureaucratic machine alone was powerless to carry out such a gigantic task. There was great need of a combination of private efforts and energies with the resources of the State. Such collaboration was attained by attracting to this work men like Apollonius. It was the same system as that used in developing the foreign commerce. Apollonius used his energy, his skill, his influence to push forward the work, and other men of the same standing, other myriaruri, did the same in other places. They worked not only for the State,—most of them, new-comers as they were, did not care very much for Egypt as such, but also and mainly for themselves in the hope of enriching themselves without risking too much, backed as they were by the State. And they succeeded by their common efforts in transforming a marshy and sandy land into fields and villages. After they disappeared having achieved their main object,—their own enrichment, the land which they helped to win for cultivation remained in the hands of the State, in the hands of the King. Thus the King achieved his aim too, the enrichment of himself and the State.

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certainly peasants of one of the villages of the δωρεά and performed their work under compulsion, receiving their allowance from the estate and not from the Government.

In the estate of Apollonius the work which began in or after the year 27 was probably finished about the year 30, as we hear nothing of dykes and canals being constructed after that year. It may be that this is accidental, but I am confident that the main work was done during these three years. In other parts of the Fayum it continued much longer as the contracts of Theodorus were concluded in the first years of Euergetes.

Along with this work of constructing dykes, digging canals and drainage ditches, cutting wood and reeds, and burning the stumps, the big work of building up the centre of this region, the village of Philadelphia, was going on. We do not know certainly that any settlement existed on the site of Philadelphia before Apollonius received his grant. The fact is probable, as Apollonius went to a place where some canals and dykes already existed and therefore there were probably men working the arable land. But it is certain that only under Apollonius did Philadelphia become a large village, almost a city, as some of the future settlers, to be sure, reverently called the new settlement (P.S.I. 341, year 30: ἀκούοντες γὰρ τὸ κλέος τῆς πόλεως, "having heard of the fame of the city," say weavers who want to settle down at Philadelphia; the same expression is used by some peasants who went to settle at Philadelphia, P. Lond. Inv. 2090, l. 6). Apollonius of course built a residence for himself. We have as yet no papyri which deal with this subject, but Edgar says that the Museum of Cairo possesses such documents. One papyrus at least (P.Z. 21, year 29) speaks of a garden of Apollonius. Apollonius is anxious to make it as Greek as possible in planting the garden olive and the laurel. Along with the palace, scores of buildings were necessary for the estate, stables for the cattle, store-houses of different kinds, wine-cellars, et cetera (see P.S.I. 546, 547). For the religious needs shrines of the Greco-Egyptian type were constructed. Two of them are mentioned: one of Thoeris, the hippopotamus goddess (P.Z. 47) and one of Anubis, the jackal-headed god (inscription for the health of Apollonius and Zenon, Lefebvre, *Annales*, XIII, p. 93). The royal cult was also introduced and a shrine built for the deified sister-wife of Philadelphus—Arsinoe (P. Lond. Inv. 2314). A necessary work was the construction of one or several market-places usual in all the Greco-

Egyptian villages,[62] not excepting the δωρεαί. One of them, named συνοικία (P. Petrie III, 73), bears the name of Artemidorus and has a special manager. Had not the village of Philadelphia a market-place named for Apollonius? I shall later speak of public baths and beer-shops, important centres of public life.

At the same time private houses were built one after another. We have quoted already the papyrus which mentioned the house of Artemidorus. Another house of the same kind occupied the interest of Zenon in the year 31 (P.Z. 31). It was built not for Zenon, although he and the members of his staff certainly possessed houses in Philadelphia, but for somebody else. It is a large house of the Greco-Egyptian type,[63] with a court, a monumental pylone, a garden, a special horse-stable—ἱππών (the builder was probably a knight—ἱππεύς), and a large bakery (cf. P.S.I. 669 where a kitchen, a swine-stable and a press for "vinacia," Italian vinello, P.S.I. 554, note 18, are constructed).

We have seen that Diodorus of P.S.I. 500 was in charge of this building activity. In P.S.I. 496 of the year 28 (cf. P.S.I. VI, p. XVI) he is sending to Apollonius a report about the situation: the brick and stone work are progressing fairly well, but not the wood work. It is a constant problem in Egyptian life that wood is so scarce and difficult to procure, as we shall see below in discussing the ship-building of Apollonius. With Diodorus, Horus, an assistant architect, is making bricks (P.S.I. 625, apparently one of the accounts of Diodorus). The presence of Diodorus may mean that this kind of work was also under state-control and that the expense for it was not entirely on the shoulders of Apollonius, but was covered partly by the revenues of the domain, which were not regarded quite as the private revenues of the land-holder.

It is possible that a certain Nicon, one of the constant correspondents of Zenon, was also connected with this constructive work of Apollonius and Zenon in Philadelphia (see P.S.I. 350, 492, 493, 595, and especially P.Z. 28).

[62] Grenfell and Hunt, *Fayum Towns and their Papyri*, p. 24.

[63] F. Luckhard, *Das Privathaus in ptolemäischen und römischen Aegypten*, (Giessen, 1914); Schubart, *Einführung*, pp. 437, 445.

VII. THE ESTATE OF APOLLONIUS AT PHILADELPHIA

Agriculture

A clerus of 10,000 arurae and the supervision of the territory of one or more villages around this clerus was a complicated business, especially in Egypt, where the largest individual tenures of the soldiers did not exceed 100 arurae and the average tenure of a crown farmer was still smaller. It is not an easy task therefore to grasp the mechanism of such an enormous machine in all the details, especially since we have only parts of the correspondence of its chief mechanician, the manager of the δωρεά. The complicated character of the business of this manager is depicted in two papyri hastily written and without dates, constituting the agenda of Zenon for the next day (P.S.I. 429 and 430). No doubt Zenon could not foresee everything which might occupy his attention the next day and noted the most important matters only. These documents are instructive snapshots of the daily life of the estate, incomplete and incidental as snapshots usually are but highly interesting and full of life.

In the first note we read (P.S.I. 429): (1) "To ask Herodotus about the goat wool; (2) to ask Ameinias whether he has sold the mina (of wool probably); (3) letter to Dioscorides about the barge; (4) to make an agreement with Timaius about the animals for sacrifice (probably calves or pigs); (5) to sign the contract with Apollodorus and to write that it should be delivered; (6) to have the barge loaded with wood; (7) to write to Jason that he should load the wool and to take care that Dionysius should ship it when cleaned; (8) about the fourth part of the Arabian sheep; (9) to ship also the vinegar; (10) to write to Meliton about the vineyard which is in the care (?) of Neoptolemus, that it should be planted, and to write to Alkimus, whether he approves; (11) to write to Theogenes about the 12 pairs of oxen; (12) to give back to Apollodorus and Kallippus drachmae . . . out of drachmae . . . ." And on the verso of the papyrus: "(13) letter of Metrodorus to Athenagoras about the

produce of the harvest of the same year; (14) the rescript (φιλάνθρωπα) to Theophilus, and about everything concerning the buildings; (15) to write to Jatrocles and Theodorus about the grain before the water of the canal. . . ."

The second slip of the agenda is shorter and written in a different hand (P.S.I. 430): "(1) to receive the olive seed; (2) olive oil from Heragorus; (3) to buy for the horses 4 scrapers, 4 cloths for rubbing, 4 scrapers (of another kind), and 1 scraper for Phatreus; (4) to receive the saplings (or cuttings) of the royal nuttrees; (5) to verify the list of the wine already shipped, for which nomes it is destined; (6) to get back the slave (?) of Hermon."

The agenda of Zenon show how complicated was the husbandry of the estate for one thing. Almost everything is touched upon: grain, irrigation of the land, vineyards, orchards, beasts both for agriculture and for wool, transportation, money, slaves, buildings, et cetera. The agenda also show how little we know about the estate and about the correspondents of Zenon. Of nineteen names recorded in the agenda we find only six in the letters preserved in the archives: Herodotus and Jason (P.S.I. 360) as the sub-managers of the estate, Dionysius as one of the farmers, Neoptolemus (P.S.I. 434, 10) as concerned with the vineyards, and Metrodorus and Athenagoras who were probably officials (P.S.I. 353 and 354).

Nevertheless the data of the letters are sufficient for illustration of every item of the agenda and for completion of the picture sketched therein. Let me begin with agriculture and especially with the production of grains, wheat, barley and others. We cannot fully grasp the importance of this department in the life of the estate. Production of grain was routine work in Egypt and did not absorb very much of Zenon's attention. Nevertheless we have many documents which deal with this branch of the husbandry of the estate.

These documents may be divided into two classes. The first deals with the relation to the estate of the crown peasants, the λαοὶ βασιλικοί, who were bound to Apollonius and to his agents by understandings concluded *en bloc*, by collective contracts. In the dealings of the administration of the estate with the peasants an active and important part is played by the state

officials, the oeconome and the nomarch. Let me produce our evidence from this class of documents first.

Who these peasants were and whence they came to Philadelphia are questions answered by two documents in the British Museum, P. Lond. Inv. 2090 and 2094, both without date. These documents are complaints of the peasants against Damis the nomarch, some addressed to Apollonius, some to Zoilus. Other documents on the same subject may come to light later as the peasants in 2094 mention that it is their third request addressed to Zoilus, and how many may they not have written to Apollonius! I doubt that there is any connection between these documents and P.Z. 40, as this last letter deals with the peasants of Hephaestias and is dated in the harvest and not in the sowing season. The subject of the complaint is not yet quite clear. The peasants came to Philadelphia from the Heliopolite nome, whether as permanent settlers or for one season only we do not know. They are numerous, as they have more than three elders (*πρεσβύτεροι*); they formed presumably the population of a whole village (see 2090, l. 3). At Philadelphia they have rented one thousand of the 10,000 arurae, partly brushwood land (*δρυμός*).[64] They had probably concluded a

[64] The beginning of P. Lond. Inv. 2090 is not clear. The peasants say in l. 2 ff. that they *have* tilled and sown 1000 arurae given to them by Apollonius but the rest of the document shows that they had not. They speak in the document of the prospect of the land remaining unsown in case they receive no hearing or satisfaction. I suppose therefore that in l. 2 ff. they intended to say that they received the 1000 arurae to be tilled and sown but that Damis prevented them from doing so: *σοῦ δόντος ἡμῖν ἀρ[ού/ρα]ς ᾱ ὡς τῶν μυρίων ὥστε κατεργάσεσθαι καὶ σπερεῖν* (instead of *καὶ ταύτας κατεργασαμένων καὶ σπειράντων*) *ἀφείλετο ἡμῶν Δάμις ἀρούρας ᾱ*. The secretary of the peasants was not an expert in Greek. Bell in a private letter suggests that the first sentence may refer not to the current but to the previous year. This suggestion is hardly acceptable, as the last lines of the document show that the peasants had just arrived at Philadelphia from their place, l. 9: *εἰκοσταῖοι γάρ ἐσμεν ἀφ' οὗ ἐνδημοῦμεν βουλόμ[ενοι δὲ σπεῖρ]αι* (I am not satisfied with the supplement *σπεῖραι* but I cannot find anything better; the context, as I understand it, requires something like *ἀπαλλάσσεσθαι*) *οὐ δυνάμεθα ἀλλὰ ἐξανηλώκαμεν εἴ τι εἴχομεν ἐπιδημοῦντες* i. e., "there are now twenty days since we arrived. We intended (to leave) but cannot and we spent during our stay everything we had." It may be that they came regularly each year to Philadelphia; but this supposition also is hardly acceptable.

contract with Apollonius or Damis, the nomarch, before coming. But very soon after they had come their hardships began. They were not allowed by one of the agents of Apollonius (Zenon himself?) to live in the town (πόλις), and they soon started to quarrel with Damis about the working and sowing of the land. According to their confused complaints Damis deprived them of the one thousand arurae, arrested their elders and forced them to sign a γραφὴ ἀποστασίου, i. e., a renunciation of the contract.[65] They proposed that he pay them nonetheless as hired workmen, probably as long as they cleared and sowed the land, but Damis refused and preferred that the land should remain unsown. How much of their assertion is true and what was the real point of their quarrel with Damis, we do not know. They were quarrelsome people, these peasants, and they had a good attorney, although not a very literate one, who wrote their requests for them.

But be that as it may, the facts transmitted to us by these requests are of the greatest importance. We see that the land was rented in lots of large extent collectively to a body of peasants, who came from distant places. We see that both the landholder and the peasants were bound by a contract, and that the contract could only be cancelled by a formal declaration by one of the parties to the effect that that party had no claim to the land. We see that in this affair the administration of the nome in the persons of the oeconome and of the nomarch took a lively part, although the contract was probably concluded between the peasants and Apollonius. And we see finally that the peasants were called to work on new soil, part of which was not yet entirely fit for cultivation.

Most interesting is the opinion of the peasants on the management of the estate. "There are," they say to Apollonius

[65] On the γραφὴ or συγγραφὴ ἀποστασίου, see Mitteis, *Grundz.*, p. 167 ff.; cf. p. 173 and B. G. U., 998; *Chrest.* 252. P. Meyer, *Juristische Papyri* (Berlin 1920), p. 77, gives a full bibliography. In P.S.I. 551, l. 8 ff., the συγγραφὴ ἀποστασίου appears as a separate document not connected directly with any purchase or lease. Horus, in P.S.I. 551, obtained such a document from his adversaries through the court; in our papyrus Damis forces the peasants to sign a document of the same kind. Of course before this document was drawn, in each case a sale or a lease had already been concluded.

(2090, l. 7), "lots of mistakes in this business of the ten thousand arurae, because there is no intelligent person to manage the agricultural work. Call some of us up and listen to what we have to tell you," and they say almost the same in the second letter asking Zoilus to give them an opportunity to confer with Apollonius personally.[66]

We meet with almost the same situation in P.Z. 40, year 33. Some land is assigned to the soldiers in the territory of one of the villages of the δωρεά, probably not out of the 10,000 arurae; meanwhile it has been rented to a body of γεωργοί. These peasants declare a strike in the month of Χοίαχ and go to a temple of Isis in the Memphite nome. The nomarch Maimachus is called up from Crocodilopolis to turn them out of the temple (l. 4: ὅπως ἂν ἐγείρηι αὐτούς).

The most important document which deals with this topic is P.S.I. 502 (the year 29). Panakestor writes a private letter to Zenon, who is at that time in Memphis, and sends him at the same time copies of a letter of Apollonius to himself and his answer to this letter. The letter of Panakestor to Zenon is purely private and does not deal directly with the subject of his correspondence with Apollonius. More interesting are the appended letters. Apollonius writes to Panakestor the short sharp letter of a master to a bad servant: "I am astounded by your negligence. You have not written me a word about the agreements on the valuation and on the gathering of the crops. Write me immediately how everything is. The year 29, Artemisius 23, Pharmouthi 30."

The answer of Panakestor contains long detailed excuses and explanations. He received the letter of Apollonius through Zoilus the oeconome. On the subject of the valuation and of the gathering of crops he has to communicate the following data. He arrived at Philadelphia on the 16th of Phamenoth,—referring certainly to his journey to Memphis to meet Zenon, and

[66] P. Lond. Inv. 2090, l. 7 ff.: καὶ οὐκ ὀλίγα δὲ ἁμαρτήματα ἐστιν ὅτι ταῖς μυρίαις ἀρούραις διὰ τὸ μὴ ὑπάρχειν ἄνθρωπον συνετὸν/ περὶ γεωργίαν. δεόμεθα οὖν σου εἴ σοι δοκεῖ εἰσκαλέσθαι (*sic*) τινας ἡμῶν καὶ εἰσακοῦσαι περὶ ὧν βουλόμεθα σοι ἀναγγεῖλαι. Also P. Lond. Inv. 2094, l. 5: καὶ εἴ σοι δοκεῖ εἴσαγον [*sic*,—the imperative!] ἡμᾶς πρὸς Ἀπολλώνιον . ἔστιν/γάρ τινα ἃ βουλόμεθα ἀναγγεῖλαι ὠφέλιμα αὐτῶι.

immediately wrote to Zoilus, to Zopyrion and to the royal secretaries asking them to come to Philadelphia and to act according to the orders of Apollonius. But Zoilus the oeconome was busy. He was on an administrative tour with Telestes.[67] The royal secretaries and the agent of Zopyrion Paues arrived twelve days after the request was sent. In their presence in the course of five days the land was surveyed according to the holders of the different parcels and to the character of the crops. After this had been done the farmers were called up and the rescript (*φιλάνθρωπα*) of Apollonius was read to them. They were afterwards offered the opportunity to conclude agreements about the valuation, according to the orders sent by Apollonius to Panakestor in a special memorandum, and to make a contract with Panakestor sealed by both parties. They asked for time to consider the proposal, and after four days went on strike, moving into the sacred precincts of a temple, saying that they didn't want any valuation, be it fair or unfair, and preferred to renounce their rights to the crops. They alleged that Apollonius had concluded an agreement with them about the payment of one-third of the harvest. Panakestor and Damis the nomarch tried in vain to persuade them, and both went to Zoilus asking him to come. But he alleged that he was busy dispatching the sailors (to Alexandria?).[68] After four days' absence Panakestor and Damis came back to Philadelphia, and according to the memorandum of Apollonius, as the peasants had refused to accept the valuation and refused also to pay anything in advance, offered the peasants the chance to present their own lower valuation (*ὑποτίμησις*); this the peasants did. These *ὑποτιμήσεις* were sent by Panakestor to Apollonius.[69] After

[67] I suppose that Telestes was the eponyme of the corps of troops called by his name. P. Hibeh 85, 14 and 99, 8. His journey was probably connected with the operation of assigning land to the soldiers of his corps. Telestes himself, as is shown by P. Hibeh 99, 8, had economic interests in Hibeh. The same part is played by Tlepolemus in P.S.I. 513, and perhaps by Pythocles in P. Freiburg 7. Cf. Lesquier, *Rev. d. études gr.*, XXXII (1921), 364 ff.

[68] I speak of the *ἀποστολὴ ναυτῶν* in my forthcoming commentary on P. Tebt. 703.

[69] I know of no parallel to this practice and of no analogies for the word *ὑποτίμησις* used in a similar connection.

this Panakestor and the royal secretaries began to measure the land to be sown with sesame and the land covered with brushwood. In conclusion Panakestor asks Apollonius not to accuse him of negligence: "your servant cannot be negligent."

The document is best explained by the R. L., in the part which contains instructions on gathering the crop of oil plants, R.L., col. 42, 3-43, 2: "When the season comes for gathering the sesame, croton and cnecus, the cultivators shall give notice to the nomarch and the toparch, or where there are no nomarchs or toparchs to the oeconome; and these officials shall summon the contractor and he shall go with them to the fields and assess the crop. The peasants and the other cultivators shall have their different kinds of produce assessed before they gather the crops, and shall make a double contract, sealed, with the contractor, and every peasant shall enter on oath the amount of land which he has sown with seed of each kind, and the amount of his assessment, and shall seal the contract, which shall also be sealed by the representative of the nomarch or toparch." In the following paragraphs (col. 43) the law prescribes that the holders of privileged lands shall deliver to the treasury the whole produce and receive money for it according to the appended list of prices. It is clear therefore that the non-privileged farmers or peasants (γεωργοί) were not in this position. One part of their crops was due to the State as payment for the seed grain, another as the rent of the land (ἐκφόριον), and the rest was taken and paid for by the State. The aim of the valuation is to calculate in advance how much given fields would yield, how much of the yield is due for seed and for the ἐκφόριον, and how large is the part due to the peasant. The system of calculation before the harvest is probably necessary owing to peculiarities of the oil crop. In making the valuation before the harvest the State tried probably to make impossible any tricks by the peasants during the harvesting and threshing. The system was unfair, as the valuation of the yield of a field before threshing is always problematical, and in making the contracts the peasants were not the stronger party.

The same conditions and the same rules form the underlying basis of the affair described by Panakestor. In both cases we

have two parties, the peasants on one hand and the contractor on the other; in our case the place of the contractor is taken by the holder of the estate, Apollonius and his agent Panakestor. The part of mediators and active supervisors is played by the same officials as in the R.L., the oeconome and the nomarch. The toparch is not present as we have seen that his functions were fulfilled by Panakestor. The difference in the relations of these different parties to each other in the R. L. and in the δωρεά, as a matter of fact is enormous, as at Philadelphia the contractor of the R. L. is replaced by the mighty dioeketes himself, who dictates his conditions both to the peasants and to the administration. This is probably the reason why Zoilus avoided taking any part in the transactions. Nevertheless Panakestor and Damis were not able to force the peasants to accept their conditions, the peasants having recurred to their old weapon, the strike. The peasants apparently did not object to the payment of one third of the produce of the fields. But they objected to the method, to the practices of valuation and of contracts, practices which are identical with those prescribed for the oil crops in the R. L.; whether they objected to the principle of valuation in general or to the valuation proposed by Panakestor we do not know; they insist on not accepting the valuation as such; but the fact that they agreed to present undervaluations (ὑποτιμήσεις) seems to show rather that they refused to accept the valuations of Panakestor.

Thus the rescript of Apollonius and his memorandum to Panakestor prescribed the introduction into the practice of the division of the crops between himself and the peasants, the same rules which he himself probably had elaborated for the division of the oil crops between the peasants, and the contractors who represented the State. The only change introduced by Apollonius in this practice, as compared with the R. L., was that the valuation was made not before but after the harvest, with the grain piled on the threshing floors. This is proved by the date of the documents. The whole matter was taken up on the 16th of Phamenoth, that is, at the harvest time (see P. Magd. 12, 3 and the note of the editors), the harvest time occupying in the Fayum, in the third century B.C., the months of Mecheir and Phamenoth. The dealings were protracted deep into the

month of Pharmuthi and were not even ended then. No crops could stand on the fields as long as this. Certainly the harvest was gathered and the grain threshed before the beginning of the whole affair. Was the measure of Apollonius a wise one or not? Judging from the fact that the same system was adopted at the same time by Hiero in Sicily and a little later by Ptolemy the son of Lysimachus at Telmessus, we may say that from the point of view of the State the measure was at least profitable. But the Verrinae show that it was profitable for the State only, the tillers of the soil protesting constantly against this practice. The reason was that the two contracting parties were not equal. Once the third party,—the officials, were on one side or were forced, as in the Verrinae, to yield to the pretensions of one side, the peasants were hopelessly cheated. The letter of Panakestor gives a splendid commentary on the complaints of the population against the contractors who were the agents of Verres, the governor himself. The part of Verres is played by Apollonius. Whether he was as unfair to the peasants as Verres was we do not know.[70]

Did Apollonius introduce the practice of valuation and contracts for the δωρεαὶ only, or perhaps for his own δωρεὰ only, or was it the adaptation of a general rule, of a νόμος to the δωρεαί? The question is of enormous importance. But we are not able as yet to give any definite answer to it. The practice of the later Ptolemaic times seems to exclude any participation of third persons, of contractors, in the gathering of the rent from the peasants. But we must reserve our judgment.[71]

[70] On the *Lex Hieronica* and its relation to the legislation of Philadelphus, see Rostowzew, *Studien*, p. 233 ff.; Frank Hewitt Cowles in his book, "Gaius Verres," *Cornell Studies in Classical Philology*, no. 20 (1917), ignores my treatment of the subject quoted above; J. Carcopino, *La loi de Hieron et les Romains* (Paris, 1919). On the law of Telmessus see my *Studien*, p. 278 ff.; Cohen, *De magistratibus Aegyptiis*, p. 12 ff. The P.S.I. 502 is a new illustration of the idea which I formulated repeatedly,—that in their administrative reforms the different Hellenistic rulers moved on the same lines and followed the same principles. I should not be surprised if a law similar to those of the Ptolemies and of Hiero appeared somewhere in Asia Minor as a *lex Attalica* or *Antiochica*.

[71] M. Rostowzew, "Kornerhebung und Transport in ptolemäisch-römischen Aegypten," *Arch. f. Papyrusf.*, III, p. 207; Pauly-Wissowa-

Conflicts of this kind between the peasants and the holders of the δωρεαὶ were constant at that time. Another clash is referred to in P. Z. 35 (year 31). The peasants of Hephaestias went on strike against Damis. They complained to Apollonius but Apollonius was not able to appear personally and sent a judge, the chrematist Peton, before whose court the peasants had to appear. In all the papyri referred to above the nomarchs, especially Damis, appear in the rôle of agents of Apollonius, as men who manage the relations between Apollonius and the peasants. We must not forget that in P.S.I. 500, Damis and his brothers are the men who supervise the agricultural affairs in the δωρεὰ of Apollonius. Undoubtedly Damis acts in the London papyri, in P.S.I. 502 and in P.Z. 35, in the same capacity, as a state agent forming a link between the State and Apollonius.

We do not know whether the peasants of Hephaestias and the peasants of P.Z. 40 worked on the land which belonged to the 10,000 arurae, or on the territory of Philadelphia not included in the ten thousand, or on the territory of one of the adjacent villages which formed a part of the δωρεὰ of Apollonius. One of the London papyri seems to show that the 10,000 arurae, as is natural, formed a well defined territory which was just the territory of the village of Philadelphia. In P. Lond. Inv. 2088, Psenemus, perhaps identical with Psenomus mentioned at the bottom of P.Z. 40 as a man who was probably connected with the affair of the peasants of Hephaestias, writes to Zenon (year 31?) about some quarrels between the villagers of Philadelphia (οἱ ἐκ τῆς Φιλαδελφείας) and the inhabitants or farmers of the borderland of the ten thousand arurae (l. 1: οἱ ἐπὶ τῶν ὁρίων π[. . . , cf. l. 2: ἐπὶ τῶν ὁρίων τῶν μυρί[ων ἀρουρῶν]) connected with the water supply. The men of the borderland dug some pits to get water and were ill treated by the men of Philadelphia. I think that these borderland men were villagers of Hephaestias and Psenemus was their representative, perhaps the komarch. But in any case we see no important differences, from the economic point of view, in the treatment of both kinds of land.

Kroll, R. E., *Frumentum;* Wilcken, *Grundz.*, p. 180 ff. Cf. P. Tebt. 58; Wilcken, *Chrest.*, 287.

Somewhere in the neighborhood of Hephaestias was situated another small settlement of peasants, Διννέως κοίτη. In P. Lond. Inv. 2097, 37 ff. we meet some πρεσβύτεροι, elders of the village, of this place. The peasants of Διννέως κοίτη rented their land from Apollonius and paid to him an ἐκφόριον (rent). The document deals with a tax in money which they had to pay to the State and which was advanced to them by Zenon and his agent Jason. We shall come back later to this document.[72]

Such is the first class of documents which inform us about the management of the land in and near Philadelphia in the estate (δωρεά) of Apollonius. Big tracts of the arable land of the ten thousand arurae, and probably almost the whole of the arable land of the other villages, were leased to groups of native peasants, in part residents of the villages, in part coming for this purpose from the neighboring nomes.

The second class of documents connected with the agricultural exploitation of the δωρεὰ deals not with groups but with individuals, not with peasants as a body but with individual farmers, mostly of native origin, but partly Greeks. Let me first produce our evidence.

One of these individual farmers of the estate of Apollonius was a Greek, *Dionysius*. He is connected with Jason, of whose dealings with the pasture land and cattle breeding, as well as with the lands not included in the 10,000 arurae, we shall speak later. Dionysius appears in three documents, P.S.I. 577 (year 38), 432 (no date) and in the agenda of Zenon 429, 14.

[72] With this series of documents we may compare the fragmentary but very important P.S.I. 490, year 28. Since the names in this document are different from those connected with the Philadelphian estate and since the harvest time is at an earlier date than in Philadelphia, Mecheir the 8th, we may suppose that the document belongs to another δωρεὰ of Apollonius perhaps that of Memphis. We meet again with disturbances at harvest time, but this time it seems that the trouble is with the guards of the crops, the γενηματοφύλακες, in which disturbances the peasants are also involved. The trouble results in a strike, but by whom, the guards or the peasants, we do not know. The danger is that the grain gathered on the threshing floors may spoil, may be eaten by worms. An interesting but still obscure point is the reference in l. 11 to contracts (συγγραφαί), with some contractors, it would seem (οἱ ἐξει . . . probably ἐξει[ληφότες], i. e., contractors). This would be the first definite mention of contractors occupied in collecting the rent in kind,—the ἐκφόρια.

In the two first documents he is called Διονύσιος ὁ γεωργός. P.S.I. 577 is a long letter from him to Zenon full of complaints directed against Jason. Dionysius rented a piece of land of 150 arurae formerly unwatered. He cleared this land of brushwood, built or repaired the dykes and watered the land. It is now sowing time, but Jason does not advance to him the seed-grain, and much of the land is in danger of remaining unsown. One portion of the land Dionysius sowed with his own grain. Another complaint of Dionysius refers to draft cattle. He asked for five pairs of cows; Jason replied that he had plenty of oxen but only one pair of cows. In P.S.I. 432 the same Dionysius is found to have given his 120 arurae tó somebody else to till. This man asks Zenon with what kind of crops to sow the land, oil plants, grass or wheat. In any case he needs seed grain in time. Seed grain and its timely delivery seem to be a constant difficulty on the estate of Apollonius.

The conditions under which the second farmer *Psentaes* works are similar (P.S.I. 422). How large was the plot of land of Psentaes we do not know. But the whole plot was never plowed before; "the land is full of gullies," says Psentaes l. 14 ff., "for it was never plowed before." Psentaes is confident that he can sow it all, for the whole land is watered. His difficulties are only that Kerkion, the agent of Zenon probably, does not give him the necessary number of oxen, and those he has given are the weakest ones. He is anxious too lest he should not get seed grain in time. In speaking of his own achievements Psentaes does not fail to hint at comparison with his fellows, *Psenobastis* and *Posidonius;* Psenobastis received the full number of cattle and yet 50 arurae of his plot remain unwatered. He ends his letter with the following proud words, l. 30 ff., "were I furnished with everything (meaning seed and cattle) nobody would work better and speedier than I do, as my father in the Saite nome was always the first among the people there."

The fellow farmer of Psentaes, Psenobastis, works probably under the same conditions as Psentaes, as does the farmer in P. Hamb. 27 (year 36). This last man informs Zenon of the progress of his work. He received oxen from Onnophris and three hired men (μισθωτοί) in addition, who were paid at the

rate of 2 obols for the plowing of one arura, which makes, for 12 arurae, 4 drachmae. But Onnophris did not send him enough grass for the oxen, and he is in need of seed grain; his supply will last two days more but no longer. More complicated is the situation in P.S.I. 400. It is a letter of *Agathon* to Zenon. He writes about 265 arurae which are rented by Petobastis. Petobastis is a debtor of the treasury and there is danger that the land may be confiscated. Agathon tries to show Zenon how to make a profit out of this land and proposes two solutions of the problem. First, he would pay 10 artabae for one arura of land sown with cereals taking care himself of the ἐκφόριον to be paid to the State. Or, he is ready to pay 10 drachmae for one arura, Zenon paying 4 drachmae as rent to the State. One hundred arurae would be fallow land. Agathon would pay for it in kind if Zenon would pay the rent; if not, he would pay in money, three drachmae for one arura, and in addition would give "for nothing" the grass for Zenon's cattle, probably the cattle used for plowing the land. Besides, Agathon asks for a salary, ten drachmae a month. According to P. Lond. Inv. 2095, l. 1-2, Petobastis was a farmer of the land situated in the territory of the Σύρων κώμη (emigrants from Syria?).

The evidence which I have produced shows that individual farmers of large plots received for the most part new land, still unplowed and unsown. They rented the land on the condition that seed grain and cattle would be furnished by the landholder, the farmer furnishing probably his manual labour only. The payments of the farmers consisted of the land tax or rent to the treasury, of some payments in money to the State also, probably for different taxes like the dyke tax, the guard tax, et cetera, of the repayment of advances (of seed grain, for example), and of a rent to the landholder. P.S.I. 400 shows that different combinations were possible and were used in making these payments.

The management of the seed grain was a particularly difficult and complicated matter, and here again there seems to be a kind of collaboration or control on the part of the State (see P.S.I. 603).

The fundamental fact which emerges from both series of documents quoted above, is that the arable land which belonged

to the δωρεὰ is regarded altogether as state land, γῆ βασιλική, and paid everything which was due by the state land in general, rent, money taxes to the State, and all the rest. But over the peasants and farmers who worked on the land stood the landholder, the master of the δωρεά, who appeared as a kind of general farmer of the land; he rented the land to the farmers, provided the farmers with seed grain and cattle, and received from them a rent, of which the rent due to the state formed one part and the smaller part only. There seems in this respect to be no difference in principle between the situation of peasants who rented the land collectively and that of the individual farmers.

One of the collective contracts stipulates the payment of one third of the produce to the holder of the δωρεὰ, whereas the individual contracts vary as regards the amount of the rent, probably according to the condition of the land. In the case of the collective contracts we do not know who furnished the peasants with the seed grain and the cattle, whether the landholder or the State, but probably it was the State. In the case of the individual farmers it was generally the landholder. In both cases the rent to the landholder was paid subsequent to the payment of the rent and of the taxes due to the State. The methods may have varied. The state payments might have been included in the rent and paid by the landholder, or paid by the farmers first, before the payment of the rent; but the main fact remained unchanged: the State received its revenue and received it first.

Under this assumption only can we understand the part played by the nomarchs and the oeconome in the management of the land rented to the peasants. They were there to guarantee the prior interests of the State. It may be that as long as the irrigation works were being constructed on the land, the whole revenue both of the State and of the holder of the δωρεὰ was used to cover the expense of this work. But even after this had been done the nomarchs remained as the supervisors of the agricultural work, at least as far as the crown peasants were involved in it. I have already pointed out that every document dealing with the crown peasants mentions either Damis and Etearchus, the brother nomarchs, or Maimachus their col-

league, or Sostratus the third brother of Damis and Etearchus (cf. P.S.I. 613). In P.S.I. 598 for example, Sostratus, as an agent of Zenon and Etearchus, in his quality of nomarch is busy collecting and buying up grain probably for furnishing the seed (cf. P.S.I. 356, where a farmer of the δωρεά complains that he cannot buy grass seed because of the competition of the oeconome who is buying up seed for the treasury).

Of great importance for this question is P. Lond. Inv. 2097, a report of Jason, a sub-manager of the estate under Zenon. The report is divided into three paragraphs. The first deals with cattle owned by Apollonius and in the care of Jason. Jason owes to the State the pasture tax (ἐννόμιον) and the guard tax (φυλακιτικόν), and has no money to pay these taxes. He proposes instead of this payment to give the oeconome the produce of the garlic plantations of the peasants of Hephaestias. But Etearchus the nomarch objects that this produce does not belong to Apollonius but to him, since he was the man who furnished the seed (χορηγεῖν, a technical expression for furnishing seed grain). After he receives the rent and his loans to the peasants, Zenon and Jason may take the rest. Apollonius appears here again as the holder of the land but along with him the state agents, the oeconome and the nomarch, represent the interests of the State, and their claims come first.

I should like to draw the attention of the reader again to P. Lond. Inv. 2097, 37 ff., the same document, but to the last paragraph. The elders of the village here owe money to the State, which was probably advanced to them by Zenon to be covered at the time of the payment of the rent.

Certain relations between the state and the individual farmers of the δωρεά are illustrated by P.S.I. 356, year 33. *Nicanor*, probably a farmer, makes his payments in grain to the treasury through the keeper of the storehouse, the sitologue, and through a cheiristes, a collector of arrears, subordinate to the sitologue. These payments represent either his whole rent, to be divided afterwards between the State and the landholder, or the part due to the State only (cf. P.S.I. 371, year 36).

The relations of the peasants with the administration of the δωρεά, as well as with the state officials are not very friendly. Strike after strike, complaints, requests, trials, are the order of

the day. The scape goat of the peasants is Damis the nomarch. The peasants of course do not dare to attack Apollonius personally but they constantly quarrel with Damis and Panakestor, the predecessor of Zenon, and with Zenon also. The cause of these quarrels is evident. The peasants were mostly new settlers in the Arsinoite. Moreover, the State constantly introduced new rules which the peasants interpreted as being directed against them. Finally the peasants had to deal with a complicated system of officials and private agents who certainly did not work together very smoothly, and each one of whom never forgot his private interests. No doubt, in all these dealings the peasants were the sufferers. Nobody cared how much of the produce of the land the peasants could retain; the state agents were anxious to get the regular payments for the State in full; the agents of Apollonius tried to get as much as possible for their master and for themselves. No wonder that the peasants were cheated very often and that a suspicious, dull mood characterized their relations with the administration and the landholders, just as in Russia under the old régime and now under the bolsheviki.[73]

Does it mean that the state as such did not aim at protecting the interests of the peasants as much as possible? Not at all. Such laws as the *νόμοι τελωνικοὶ* of Philadelphus show that the State was anxious to regulate as far as possible the collection of the taxes, to leave no place for the discretion of the officials, to organize courts for dealing with complaints. We have seen how helpless were Panakestor and Damis in confronting the behaviour of the peasants in P.S.I. 502. The quarrel between Damis and the peasants of Hephaestias was settled by a special judge sent to Philadelphia by Apollonius.

But taking for granted this care of the State for the peasants, how can we explain the fact of the creation of large estates, a fact which aggravated the hardships of the peasants and gave no supplementary income to the State? I shall return to this question in my last chapter.

The relations of the administrative officials of the estate with the individual farmers seems to be better. This is not sur-

[73] Rostovtzeff, *Journ. of Egypt. Arch.*, VI (1920) 178, note 10.

prising since the individual farmers worked for their own profit and were free to sever the connection at any moment. They were not cattle like the crown peasants who had no individuality and appear always as a mass.

A large estate of the size of the estate of Apollonius could not be administered by one man. No doubt therefore the whole management was subdivided into departments; Zenon, and before him Panakestor, had many minor agents of different ranks. This assumption is fully confirmed by our evidence.

At the time of Panakestor his nearest assistant was *Maron*, the author of the letter P.S.I. 500 many times referred to. He appears also in P.S.I. 501 and 613 of the same time and in P. Lond. Inv. 2086 (no date) in connection with the management of a bath; the latter papyrus may be safely dated in the year 29, as after that Maron disappears entirely.

Under the rule of Zenon the man who is mentioned about sixteen times in connection with the management of the estate is *Jason*, the son of Kerkion from Kalynda, perhaps a relative of Zenon, who lived in Philadelphia at the time of Panakestor (P.S.I. 500 and 501). His letters are all concerned either with the herds of the estate which grazed on the pasture land of different villages of the territory of the δωρεά (e. g. Σύρων κώμη, P. Lond. Inv. 2095; Hephaestias, P. Lond. Inv. 2097), or with agricultural affairs mostly connected with lands situated outside of the territory of Philadelphia. In P.S.I. 360 he is busy with Herodotus in collecting grain in the villages of Arsinoe and Νεανίσκοι; in P.S.I. 394 he accepts Admetus as a warrant in the sum of 30 art. of barley for a certain Jollas from Berenice; in P.S.I. 577 he is bound to furnish seed and cattle to the farmer Dionysius; in P.S.I. 579 he has to care for grass land; finally in the two documents P. Lond. Inv. 2095 and 2097 (cf. P.S.I. 368, a document of his hand probably, using constantly the same expressions), especially in the second, he is dealing not only with cattle but also with land planted with oil plants, and with other matters. He is mentioned in the agenda of Zenon (P.S.I. 429). Jason was not only an agent of Zenon but had his own business; in P.S.I. 385 he farms a clerus and in 626 (comp. 377, 14) he appears as owner of some sheep. He is closely connected with *Herodotus* (in P.S.I. 517 he is named

alone, and in 360, 368, 429, P. Lond. Inv. 2097, along with Jason). We may safely assume that both were in charge of the herds of the estate and at the same time managed the interests of Apollonius in the villages which belonged to the territory of the δωρεά. The combination is a reasonable one as most of the pastures for the herds were situated in the territories of these villages.

Of the same kind was the commission of *Glaukias*, P.S.I. 427, 2; he has to do mostly with live stock and especially with horses and donkeys (P.S.I. 438 and 527), but at the same time he cares for sesame and croton, like Jason (P.S.I. 438), and performs other commissions for Zenon (P.S.I. 439).

Another supervisor of the agricultural work in the estate was *Eutychides*. In the year 32 (P.Z. 37) he was called up by Diotimus the sub-dioeketes to render his accounts. In the year 38 (P.S.I. 522) he reports to Zenon on the conditions which prevail in his department; he says that there is no possibility of sowing more than 340 arurae with sesame, that he expects to receive 600 artabae of barley and about 400 artabae of chick-peas.

Along with these great personages in the life of the estate we have minor ones, some Greeks, some natives.[74] They were probably farmers of some parts of the estate and at the same time had charge of larger plots or sections. They bear therefore often the predicate γεωργός, farmer. Such are *Asclepiades* (P.S.I. 365; 388, 61; 636; comp. 427, 18); *Labos*, an Egyptian (P.S.I. 427, 6; in 371 he pays out some grain to different persons occupied in the estate, their rations certainly, —σιτομετρίαι); *Onnophris*, another Egyptian, the same man who had charge of the draft cattle in one part of the estate (P.S.I. 427, 12; P. Hamb. 27; P.S.I. 422; 639, where he measures the land near Πρεζ . . . and reports to Zenon); *Kerkion* (P.S.I. 422, 5); and *Pyrrus* (P.S.I. 427, 15; 417; 443; 629, 13; P. Lond. Inv. 2084). The most interesting documents of this series are P.S.I.

[74] Most of them are enumerated in P.S.I. 427,—a list of sacks and bags distributed among different employees of the estate, two of whom were perhaps slaves (παῖδες). I do not know why these sacks and bags in small quantities were given to these persons. Was it for collecting and keeping money and other things?

522 and those connected with Pyrrus. At the end of his report (P.S.I. 522) Eutychides speaks about Horus, the son of Onnophris. Horus is the chief of 300 arurae (l. 4: ἐπιστάτης ἐν/(ἀρούραις) T) but is comparatively inexperienced and careless. There follows the enumeration of his crimes. Among the documents which are written by Pyrrus we have one (P.S.I. 443) where he complains about the slowness in the payment of his salary, both in money and in kind (ὀψώνιον and σιτομετρία). In the other, P.S.I. 417, a very long and badly preserved one, he protests against his being charged with a payment of 240 artabae of wheat to the treasury on the ground of a statement of Etearchus the nomarch. The payment is certainly due by him either as a farmer or rather as a chief of a section of the estate. The letter is both very amusing and instructive. Nicanor, perhaps the second sub-dioeketes of Apollonius, affirmed that the wrong was done to Pyrrus not by Etearchus but by Zenon. Zenon was first charged with this arrear but (I quote the copy of a letter by an unknown writer appended by Pyrrus to his letter addressed to Zenon, fr. c.) "when I tried to exact the grain from Zenon, Zenon told me to refer the debt to the account of Pyrrus lest this debt might be reported to Apollonius as being that of Zenon" (I read in l. 23 ff., ἵνα μὴ/'Απολλωνίωι ἀν[αφέρη]/ται ἐν Ζήνωνι ὀφείλημα). From the documents quoted above we may infer that the sub-managers of the estate were partly officials, as was Zenon himself, partly a combination of officials and farmers. They received a fixed salary, but were responsible for the section of the estate given into their care. Probably Agathon, of whom I spoke above, tried to receive a commission of the same kind (P.S.I. 400).

The revenues of the estate from its agricultural exploitation consisted mainly in grain. One part of this grain was used in the estate itself for paying salaries to the different workmen and officials of the estate and for paying also some taxes (P.S.I. 371); another was certainly sold for money (P.S.I. 492). But I have reasons for doubting that all the grain owned by the estate was freely sold to private dealers in grain. P.S.I. 425 (no date) is a memorandum addressed to Zenon. The first part of the document deals with grain which was sold by Zenon and Diotimus to the toparchi. The trouble is that the quantity of

the grain sold does not correspond to the contract (πρᾶσις), a larger amount than was due being sent to some nomes (I read, l. 7 ff., ἀλλ'εἰς τινὰς {μὲν} νομοὺς ὑπερμεμετρημένον, εἰς instead of ἔτι which makes no sense). And the writer of the document adds, l. 9: "let the grain be registered nome by nome, how much was sold and how much was sent to the nome" (I read ἀ]πέσταλται not ἐ]πέσταλται).

The document is not easy to understand. I would suggest that the grain referred to is the σῖτος ἀγοραστός, the grain which was bought on compulsion chiefly from the holders of military cleri. From P. Petrie II, 31—III, 53 (d) I conclude that the grain of the cleruchi was usually temporarily retained by the government pending the payment of the taxes and released only after this obligation had been met. One of the taxes paid by the cleruchi was εἰς τὸν ἀγοραστὸν οὗ ἡ τιμὴ ἀντιδιαγέγραπται.,—i.e., a payment in money instead of in grain (P. Petrie III, 113; II, 30 (a)—III, 131; II, 20, col. II, and 48, 7 and 16). In the last three documents the σῖτος ἀγοραστὸς is opposed to the φορικός (cf. P. Petrie III, 100 (b); P.S.I. 321 and P.Z. 1: σῖτος βασιλικός; Wilcken, *Grundz.*, 357 and *Chrest.*, 241). As P.S.I. 609 mentions a payment εἰς τὸν ἀγοραστὸν καθότι Φανίας συντέταχεν, I venture to suppose that the estate of Apollonius like the military cleri had to sell on compulsion a part of its grain to the State and that this grain was distributed among different nomes less rich in grain. Along with grain there were large amounts of grass and hay which again were to a great extent expended in the estate itself so that the administration had sometimes difficulty in providing its cattle with food. Nevertheless, some hay was sold, see P.S.I. 559, year 29; but this document, fragmentary as it is, may refer not to the sale of grass and hay, but to the renting of hay land.

Thus wheat, barley and other cereals, grass and hay hardly gave a large income in money to the landholder, as most of the produce was paid to the State, retained by the peasants and farmers, spent in the estate as seed-grain, in rations in kind to the administration and workmen, in feeding the cattle and fowl, et cetera. A net revenue in money represented the planting or sowing of the oil plants. Sesame, croton, et cetera, were sown in great quantities in the estate (see, e.g., P.S.I.

499, year 29; 500 (idem); 502 (idem); 522 year 38; P. Lond. Inv. 2097, l. 22 ff., Artemidorus also has large quantities of oil seed, P. Z. 42). I have tried to explain the great development of oil production. The new land, formerly marsh, was best adapted to oil plants and gave abundant harvests. We have no documents showing any restrictions imposed on the land holder of the estate as to the quantity of land to be sown with oil plants each year. It may be that the State did not impose any, or it may be that our evidence on this point is not sufficient.

As regards the produce in oil seed (φορτία ἐλαικά), the administration of the estate acted strictly according to the rules established in the R. L. We have seen that in col. 43, l. 11 ff., the R. L. prescribe that the holders of the δωρεαί deliver to the treasury all the oil seed which they gather, retaining for themselves only the necessary seed grain; in col. 44 they are ordered not to have any oil factories in the villages which belong to a δωρεά. What the expression "all the product" really means, I do not know; does it mean the whole produce of the fields including the share of the farmer? Or had the farmer separate dealings with the State? Be that as it may, the question in itself not being very important, the administration of the estate acted as was prescribed in the R. L. In the year 34 Hermolaus the oeconome sends a special agent, Korragus, to Philadelphia to receive the croton from Zenon and to transport it. Zenon has to take care of the donkeys for this transport (P. Lond. Inv. 2079). The letter of Hermolaus to Zenon, which informed Zenon about Korragus, was written on the 15th of Mecheir (harvest-time), and on the 22d of the same month Korragus is active in Philadelphia: he delivers receipts for payment of croton which was certainly gradually delivered to him by Zenon (see P.S.I. 358). The seed was delivered without any preliminary testing of its purity; this work was reserved for the place of destination, a large storehouse provided with good opportunities for the operations of the κάθαρσις of the seed. Meanwhile a sample of the seed, ten artabae, was sealed in a special box; according to this of course the money would be paid for the whole lot. The last act of the operation for the estate was the payment by the treasury to the estate of the money due for the seed. It is noteworthy that money

for the seed was paid by the chief agent of the royal treasury in the nome, the chief treasurer Python, a man well known to every student of the Ptolemaic papyri. In P.S.I. 518, year 35, in the month of Mesore, i.e., 4 or 5 months after delivery, he pays the money for the sesame of the same year.

It is noteworthy that in all these operations there is no trace of the farmers of the state monopoly who play such a prominent part in the law of this monopoly.

Since the village had no oil factories the population must have been provided with oil by one way or another by the administration. This task seems to have been fulfilled by a special agent of the administration, ὁ ἐπὶ τῶι ἐλαίωι, the chief agent for oil. In the year 36 (P.S.I. 372) a certain Horus, son of Petarmotis, a farmer, paid to this agent for the account of Teos, the oil retailer of Sophthis, 8 artabae of sesame. Analogous is the situation in P. Lille 9 where another shopkeeper of the same kind has large quantities of sesame on the ἄλως (threshing floor). In P.S.I. 438 an agent of Zenon Glaukias tries to catch the chief oil agent for regulating some affairs connected with sesame and croton. In this document this man is called ὁ πρὸς τῶι ἐλαιουργίωι, agent for oil making. He may have been the agent of the State or of the oil farmers to deal with the shopkeepers of the δωρεά, and with the administration of the estate. In what way the shopkeepers came into possession of sesame seed I do not know.

Two documents of almost the same content (P.S.I. 349 and 566) of the year 32, letters of Theokles to Zenon, speak of transactions in oil in which, besides the two correspondents, Zenon the oil farmer is involved. Theokles must receive some oil for the λινεψοί (makers of linseed oil?) and cannot get it without special permission from Apollonius and Diotimus and without a special guarantee from Zenon. This is characteristic of the care the State observed in its transactions in oil and shows how difficult it was to get large quantities of it; the shopkeepers of course were merely retail traders only and sold only small quantities. The guarantee required by Theokles from Zenon shows that Zenon was responsible to the administration and to the oil farmers for observation in the δωρεά of the laws on oil distribution.

VIII. THE ESTATE OF APOLLONIUS AT PHILADELPHIA

Vineyards, Orchards, and Market Gardens

The Philadelphia documents of the Roman period discussed in my second chapter show that Philadelphia at that time was an important centre of wine production, that a large part of its territory was planted with vines, with fruit and olive trees. This is also true for the early Ptolemaic period. Under Philopator, as is shown by P. Petrie III, 52 (a) and (b), the territory or a part of the territory of Philadelphia paid for its vineyards as the apomoira tax not less than 1½ talents.

Extensive viticulture was common throughout the Fayum. The whole nome of Arsinoe was covered with vineyards. Many of them were very large indeed. In P. Petrie III, 67 (b) we meet with vineyards (κτήματα) of a certain Herakleides which yielded 898⅙ metretae of wine; 600 metretae were sold for 1 talent and out of this sum the tax was paid, in amount 1893 dr. 3 ob.; the remainder amounted to 4106 dr. 3 ob. in money and 298⅙ metr. of wine. A special manager (ὁ προεστηκώς) runs another large vineyard which belongs to a woman, Eirene. This vineyard yields 200 metr. of wine (P. Petrie II, 30 (e)—III, 69 (b)). Smaller vineyards are mentioned frequently (see, e.g., the document quoted above and also P. Petrie II, 27, 1—III, 69 (a)). The income of the State from these vineyards was certainly very large. For the apomoira of a number of villages in one meris, counting only the βασιλικὴ γῆ (crown land) and the wine valuated in silver, the State received 18,626 dr., and in addition more than 7,000 metr. of wine worth about 20,000 dr. at least. I cannot produce all the data on this topic. It would be a matter of great interest to collect all the material and to investigate it from the historical, economic and archaeological points of view.

The reason for the rapid extension of viticulture in the Fayum and for the gradual transformation of the Fayum into a wine land is easily understood. The owners of the vineyards were mostly Greeks, to a great extent military settlers. Vine grow-

ing, as one of the most prominent features of Greek economic life, was a business with which they were thoroughly familiar. Furthermore, as I have shown in my book on the Colonate,[75] planting of a plot of land with vines, provided permission had been secured from the State, made the plot the hereditary property of the planter (ἐμφυτευτής). The State in its own interest encouraged vine planting by the Greek settlers. The State drew from the vineyards a large income in money. Moreover, vine planting meant the investment of capital in the land by the new settlers and so bound them to the land; thus soldiers of the mercenary troops, officials and some adventurous business men were gradually transformed into permanent settlers in Egypt, attached to the land by important economic interests. The wine market was made secure by the growing Greek population of Egypt and the State was glad to supply its wine drinking army with local wine instead of spending huge sums of money in buying wine abroad. The native Egyptians of course remained beer-drinkers as always.

It is worthy of note that the vineyard owners were mostly Greeks; native owners were rather exceptional. I have no reason to suppose that the natives were not inclined to plant vines and thus to become land owners instead of crown peasants. But I have every reason to assume that the State regarded such a transformation without sympathy. We must not forget that for planting a plot with vines special permission of the State was required. I am sure that the State granted such permission to crown peasants only occasionally. In the mind of the Ptolemies, the prosperity of the land depended on the crown peasants remaining state farmers and producers of grain, bound to their place of origin and to their profession.

Vine planting developed rapidly during the early Ptolemaic period. Under Philadelphus large tracts of the newly acquired land were already planted with vines, and this is characteristic not only of the Fayum. A glance at such documents as P. Par. 67 and P. Petrie III, 117 and 122,—lists of revenues of the State from the vineyards,—will fully establish this fact. There is much of general history in this process, of the history of the Hellenization of Egypt under the first Ptolemies. Such modest

[75] Rostowzew, *Studien*, p. 14 ff.

documents as the letter of Alkaeus to Sosiphon (P. Petrie I, 29) are brilliant illustrations of my statement: Alkaeus informs Sosiphon that he planted three hundred vine roots and among them some trees (*ἀναδενδράς*); the plantation is assiduously watered.

Vine planting on a large scale was being carried out on the estate of Apollonius also. In the year 29 (P.S.I. 499) Panakestor received from Zenon a large amount of cuttings or sets, probably of vines. A part of them had already come on twenty donkeys, another part was expected. In the year 34 this operation was still going on; cuttings are loaded on a ship and sent to Philadelphia (P.S.I. 568). Newly planted vineyards are occasionally mentioned in the year 36 (P.S.I. 371, l. 10 ff., cf. P. Lond. Inv. 2313). This planting of vineyards was begun at Philadelphia probably at the very beginning of the existence of the estate, as in the year 30 (P.S.I. 345) vintage on a large scale is going on there. Kritias, probably an agent of Zenon, is writing a hasty letter to Zenon: "They are preparing to gather the grapes. Send guards, not less than ten, and write to my men to help guard. Write also to Hegesianax lest some violence should occur." In the same year we see Damis dealing with large vineyards (P.S.I. 508) probably as a sub-contractor of taxes paid on them (see further below). This last document shows that Apollonius did not stand alone in Philadelphia as a possessor of large vineyards.

How large a part of the estate was planted with vines we do not know. One of the documents mentions a man named Alkimus, a vinedresser, who was the manager of thirty arurae of vines and also of some new vine plantations (P.S.I. 371, 10: *Ἄλκιμος ἀ[μ]πελουργὸς ὁ προεστηκὼς τῶν λ [ἀρουρῶν] καὶ τοῦ/ Γλαύκου κα[ὶ . . .]χου νεοφύτων ἀμπελώνων*; cf. P.S.I. 429, 23 ff). Large quantities of wine of different kinds were shipped from Philadelphia probably to Alexandria (P.S.I. 428); two kinds are specially mentioned, Knidian and Chian wine, both famous brands and one virtually Zenon's native wine; with them native wine was also shipped (*ἐπιχώριος*).

Thus we may say that Apollonius was busy in transforming a part of his estate into vineyards planted with the best sorts of Greek vines. There was no danger that anyone would for-

bid his transforming parts of his personal holding into κτήματα, hereditary property, almost a synonym for vineyard, as he was himself both the planter and the one who granted the permission for planting. For a man of such standing as Apollonius it was not risky to invest money in vineyards and to wait nearly five years before the money began to return interest.

How Apollonius managed his vineyards we do not know precisely, but the fact that Zenon with his own hand wrote instructions as to how to deal with vineyards (P.S.I. 624), shows that Zenon himself closely supervised the management. It is a pity that these instructions are in such bad state of preservation, not one sentence being complete. It seems that his instructions were based on scientific Greek treatises adapted to the peculiar conditions of Egypt. We may trace the existence of such Greco-Egyptian treatises in both the Greek and the Roman treatises on agriculture.[76]

On the other hand we have many references to vinedressers (ἀμπελουργοί), mostly Greeks, who received fixed salaries, one of whom, as we have seen, was the manager of a large vineyard. In P.S.I. 336, year 29, three of them, *Peteuris*, *Onnophris* and *Theophilus*, two natives and one Greek, who were both κηπουροί (gardeners) and ἀμπελουργοί (vinedressers), received salaries of 5 dr. for twenty days each. In P.S.I. 371, 10, we meet *Alkimus* mentioned above, who appears also in the agenda of Zenon in connection with vineyards (P.S.I. 429, 23). In P.S.I. 414, *Menon* the vinedresser claims his salary of 3 dr., and complains that he has no other income, from vegetables for example, like the other vinedressers (vegetables often being grown in the vineyards cf. P.S.I. 434). In P.S.I. 628, *Hermogenes* the vinedresser is credited with his salary, as also in P.S.I. 672, are two vinedressers, *Kleon* and *Herakleides;* the latter is also mentioned in the list of people who received sacks and bags (P.S.I. 427, 21,—Ἡρακλείδει $\overset{\mu}{\alpha}$, this being the abbreviation of ἀμπελουργὸς or ἀμπελὼν as found in many Petrie Papyri). Finally

[76] Cf. P. Oxyr. 1631. The practice in Egypt, as illustrated by this papyrus, followed closely the general instructions given by the Greek and Roman manuals of agriculture. The basis of these manuals was certainly the work done by the early Hellenistic scientists and practical men, whose work in turn rested upon the theoretical investigations of Theophrastus.

in P.S.I. 629 and 630, we have two documents dealing with implements such as were especially used by the vinedressers: different kinds of axes (*ἀξίναι, πελέκεις*), hoes (*δίκελλαι*) and spades (*σκαφεῖα*); the axe is constantly the symbol of wine and of Dionysus on coins of many Greek cities (e.g., Tenedus; see Head, *Historia Nummorun*, 2, p. 551, and Index under *Bipennis*). One of these documents, P.S.I. 630, speaks of these implements being given to Alkimus whom we know as the manager of one of the large vineyards. The same Alkimus appears in P.S.I. 629 along with many other men, the names of some of whom are identical with names of vinedressers found in other documents; one example besides Alkimus, is *Apollonides*, mentioned as a vinedresser in P.S.I. 434, of which I shall speak later. We may safely assume that the other names in this document are names of vinedressers too, *Andron* and *Timocles*, and perhaps *Cheilon*. Almost all of these men are Greeks, all are specialists in vinedressing, each receives a salary and like Alkimus, has to care for a large or small vineyard.

It is probable therefore that most or perhaps all of the vineyards of the estate were managed by salaried Greeks who received their implements from the estate and probably were given the assistance of unskilled wage earners. One seems to be the chief of all, the general supervisor of the vineyards in general. It is *Herakleides*. In two interesting documents (P.S.I. 433 and 434) he appears as the superior of a certain gardener and vinedresser who was also a specialist in planting melons, pumpkins, onions and garlic,—*Euempolus*, another name to add to the list of vinedressers. In P.S.I. 433, Herakleides gives to Euempolus land for planting garlic; in P.S.I. 434 he sends a man to accompany him on his inspection of melon, pumpkin and onion plantations in different vineyards. In this inspection he has to deal with the stubborn and, as he says, crazy Apollonides, whom we have already met, and he mentions the names of two more vinedressers, *Python* and *Neoptolemus;* the latter is mentioned with Alkimus in the agenda of Zenon in connection with vineyards (P.S.I. 429, 22; I do not know that Edgar is right in identifying him with Neoptolemus the Macedonian, author of the petition P.Z. 38, of which I shall speak later).

These statistics show the importance of vine growing in the husbandry of the estate. At least thirteen large vineyards existed there and our list of course is far from complete. Of the conditions under which the vinedressers named above were employed we are not fully informed. That they received salaries, were given manual laborers as help, and were furnished with implements, are facts that do not prove that they had no share in the profits. We have seen that the same conditions apply to the individual farmers of the arable land. I am rather inclined to think that the vinedressers also were at once hired specialists and farmers of the produce. An interesting hint at this is found in P.S.I. 434. Euempolus describes his inspection of the melon, pumpkin and onion plantations in the vineyards; the farmers of these plantations are obliged to pay half of the produce ἐξ συντιμήσεως, i. e., according to a special agreement on the valuation of this produce; the payments are made in money. Having finished with this topic Euempolus begins to speak of other matters, about the farming of the produce of the vineyards themselves. The operation of farming this produce was fulfilled by Euempolus in the regular form, in the presence of an official, Anosis, the village-scribe of Philadelphia (s. Addenda p. 174), and in the form of a public auction, ὑπὸ κήρυκα. Thus the same methods were used as on the arable land. A trick in this respect was played by Apollonides, one of the vinedressers, who farmed his vineyard to someone without any such formalities and received much more money. This story of Euempolus shows that the vinedressers had certainly not only their salaries but also a share in the produce both of the vineyard and of the vegetable gardens planted in the vineyards; they were therefore at one and the same time managers and farmers, like the γεωργοὶ of whom I spoke in the preceding chapter.

It is possible that some of them were at the same time cleruchi. If the identification of Neoptolemus, the vinedresser, with Neoptolemus the Macedonian, one of the cleruchi of Philadelphia (P.Z. 38), proposed by Edgar be correct, the fact would be established beyond doubt. A corroboration of Edgar's point of view may be found in P.S.I. 588, where we find Herakleides writing to Zenon about some houses (σταθμοί),

mentioning Onnophris and Timocles whom we know as vinedressers, and mentioning also (l. 7), *ἐπιγόνων μεθ' ὅπλων ἐξέβα*[*λεν*], i. e., one of the *ἐπίγονοι* (military term) as having been ejected from his house with his weapons. This fragmentary letter seems to point to the fact that Herakleides was himself a soldier (P.S.I. 348, where again two vinedressers, Kleon and Herakleides, are mentioned together).

A vivid picture of the life in Apollonius' vineyards is given by the same Euempolus in his long letter P.S.I. 434 (cf. 345, quoted above, p. 98). Euempolus is not a very good stylist but he has the gift of sharp characterization, as is shown when he refers to the violent and half crazy Apollonides as one who is nevertheless a good business man; he speaks a pointed vulgar Greek and has a good sense of humour. In l. 15 ff. he says: "Nobody prepares the wine vats, neither do they build new ones, and time presses. Last year we began to gather the grapes on Pachons the 28th (the letter is written on Pachons the 2nd). But they don't prepare themselves even to catch a mouse (a proverb, no doubt)! Thus if you do not come yourself very soon and give orders about everything, stimulating the rest of them, you will lose much."

What were the relations of Apollonius as a large vine grower to the State?[77] From the R. L. we know that the vineyards of the *δωρεαί* paid one-sixth or one-tenth of the produce, the apomoira, to the goddess Philadelphus, the deified sister-wife of Ptolemaeus Philadelphus. But the vineyards in general paid more than the apomoira. Besides a series of minor taxes,—*χωματικόν*, *φυλακιτικὸν* and others, they were subject to a heavy tax of one-third or one-half of the produce, not including the apomoira. This we know from P. Petrie III, 117 (b) and 122 (d). The tax was called *τρίτη ἀμπελώνων* or *ἀπὸ τιμῆς τοῦ οἴνου*. In P. Eleph. 14, 2, this tax is included in the general name *οἱ καθήκοντες ἀργυρικοὶ φόροι*, and in P.S.I. 632 and P. Z. 38, it is called *ἐπιγραφή*. It is probable that the vineyards paid in addition a special land tax, *ἐπαρούριον*, (see P. Hib. 112, p. 302); this tax seems to be of the same kind as the tax for the dykes (*χωματικόν*) and means perhaps a payment for using the irriga-

[77] The last treatment of the problem is that of Edgar, P. Z. 38, Introduction.

tion system; it is probably included in the ἀργυρικοὶ φόροι of P. Eleph. 14.

Three documents of Zenon's correspondence give a splendid, full picture of how the main tax, the one-third, was levied. One is P.S.I. 508. The vineyards rented or farmed (see further below) by Damis paid one-third or one-half of their produce in money. This variation in the amount of the tax is explained by P. Z. 38. Neoptolemus, the vinedresser and cleruch of Philadelphia, protests in a letter written to the subdioeketes Diotimus against the treatment of his father, Stratippus, owner of vineyards in the Aphroditopolite nome, by Theokles, the former oeconome of this nome and by Petosiris, the royal secretary. These men assessed the vineyard of Stratippus for one-half of the produce, taking the average of the produce for the last two years, instead of assessing it for one-third, taking the average for the last three years. They say that the vineyard is newly planted, which is not true, as the vineyard has been bearing for four years. Thus the newly planted vineyards paid a heavier tax than the old ones, probably because of the smaller quantity of grapes which they yielded. At the end of his petition Neoptolemus asked Diotimus to reckon in with the payments of his father for the vineyard, the sums which were paid by the wineshop keepers to the treasury as the price of his father's wine.

The same Stratippus writes a similar petition to the king (P.S.I. 632, cf. p. XVIII) concerning his vineyards in the Aphroditopolite. He is himself a Macedonian, one of the ἱππεῖς of the corps of Antigonus, cleruch in the Herakleopolite. The petition is fragmentary and not dated. After having mentioned the apomoira (ἕκτη and δεκάτη), he complains, as far as I can understand this fragmentary portion of the papyrus, that being obliged to pay his ἐπιγραφὴ at the rate of 3 dr. and some oboli for the metretes, he happens now to pay much more, as the oeconomes sell the wine for much less than for 3 dr.[78] His whole business is therefore in danger of being ruined, and he

[78] I read l. 6: ἐπιγραφῆς ἀποτίνειν με τοὺ[του τοῦ ἀμπε]λῶνος ἐκ τριῶν δραχμῶν καὶ/[. . . ἕκαστον] τὸν μετρητὴν εἰς τὸ βασιλικόν.[συμβαίνει ο]ὖν μοι ὑπὸ τῶν οἰκονόμων περι/[—π]ερὶ τῆς τιμῆς αὐτοὺς πωλεῖν [τῶν γ δραχμῶν ..πολ]ὺ ἐλάττονος. . . .

asks the king to send to Apollonius the dioeketes and Nicanor the sub-dioeketes his petition to have his payments made in monthly installments. Here again the ἐπιγραφή is paid in wine (ἐξ[ὑ]γροῦ is the technical expression, P. Tebt. 703), and the wine is sold to the wine sellers by the oeconomes at a price which is fluctuating.

We may assume therefore, that first an agreement about the amount in kind and the money value of the tax to be paid by the owner of the vineyard was concluded between the farmer of the tax and the owner of the vineyard, in the presence of the officials. This agreement was of the same kind as those usual in the oil monopoly, the collective contracts with the peasants about cereals and the rest. This agreement, taking as the point of departure the average paid for the last two or three years, stated the sum to be paid in the current year in money. After the vintage this tax was either paid in money, or if not, a certain amount of wine was delivered by the tax-payer to the local wine sellers, to whom all the wine of the locality had been already sold by the oeconome and the farmer of the wine tax. The value of the wine delivered by the tax-payer was entered under the name of the tax-payer, and was paid to the treasury by the wine seller; the treasury credited the money against the payments due from the tax-payers; these are the payments τιμῆς οἴνου or ἀπὸ τιμῆς οἴνου of the Petrie Papyri. When the tax-payer's debt was covered, the rest of his produce, hitherto under arrest, was released (ἀφιέναι), and the owner of the vineyard was free to sell his wine to anyone. The choice of course was limited as the wine was sold in retail only by special shop-keepers who held licenses from the state.

This practice appears again in P.S.I. 383, year 38. Theron, a farmer of a vineyard, has paid his tax for the year 38. His payment was accepted by the treasury, to which it came with a special document (διαγραφή) signed by the tax farmers, who received this document from the retailer who had bought the wine (ὁ τὸν οἶνον ἐωνημένος κάπηλος). The diagraphe stated how much was due, how much was received in kind and how much it was worth in money. The trouble in this case was that the payment was entered by a mistake of the agents of the tax farmer, not for the year 38, but for the year 37, and for this year Theron had paid in full.

The information presented by the documents of Zenon's archives on the subject of the taxation of the vineyards is therefore very extensive. But no one of these documents mentions vineyards which belonged to Apollonius or to Zenon, and some of the documents refer to vineyards which were not even situated in the Arsinoite nome. How did all these documents happen to be in the archives of Zenon? The answer to this question is found in other documents of the same archives. In his agenda (P.S.I. 430) Zenon writes "to verify the accounts of wine shipped to the landing place, for which nome the wine is destined." In P.S.I. 425, of which I spoke when dealing with the grain, the second part of the document is devoted to pointing out mistakes committed by Zenon in his bookkeeping: (1) in the formulæ of the agreements and contracts (συγγραφαὶ and σύμβολα); (2) it is necessary to have rewritten the letters given by the warrantors of the retail traders in wine of the Memphite and the Aphroditopolite; (3) the writer of the letter asks for the list of the distribution of wine meaning probably the wine sold to the retail traders, a list compiled by Aristandrus and Hermolaus, the oeconomes; the list is needed to show which of the traders did not receive wine. The author of the letter is probably the sub-dioeketes who had much to do with the taxation of the vineyards.

Finally in P.S.I. 439, year 4 of Euergetes, Demetrius writes a letter to Zenon informing him that he has sent to him Glaukias who is bringing the accounts of the produce of the merides of Themistus and Polemon. The accounts for the other τόποι, probably the third meris, that of Herakleides where Philadelphia was situated, he had not yet received from his subordinates. Zenon must read the accounts, sign them and send them back to Demetrius. The produce of which Demetrius speaks is not specified, but as near the end of the letter Demetrius speaks of the sale of wine and of vinegar, we may be sure that the γενήματα are the produce of the vineyards of the entire Arsinoite nome. I note moreover the fragment P.S.I. 650, which is addressed to Zenon and speaks of retaining some wine and not allowing it to be sold, probably because the man in question has not paid his tax.

If we look attentively at the documents we see that Zenon acts in the Arsinoite, the Memphite and the Aphroditopolite: (1) as the man who makes contracts with the retail traders in wine; (2) who distributes the wine among them; (3) who ships the wine to different nomes. Moreover his agents register the produce of the whole of the Arsinoite, and Zenon keeps in his archives documents which are connected with certain irregularities in the levying of the wine taxes, the apomoira and the epigraphe. The duties mentioned above correspond in almost all details with what we know about the duties of the farmers of the oil monopoly as depicted in the R. L. I have no doubt therefore that Zenon was the general farmer of the taxes on wine land for three nomes at least, the Arsinoite, the Aphroditopolite and the Memphite. One of his sub-contractors was probably Damis (P.S.I. 508); Zenon is asked in this document to give his guarantee for Damis and to give the order to release the wine owned by Damis.

Thus Zenon acts as a large tax farmer. Was it on his own account, or behind him do we see Apollonius as the real farmer but unable to act as such since the law forbade officials to take part in the farming of taxes (R. L., col. 15, l. 1 foll.)? I cannot say, but surely it is difficult to assume that Apollonius allowed his general manager to be involved in such big operations without having his own share in these operations. As a large vine grower he was interested in exercising control over wine prices in the wine producing parts of Egypt. One of his letters to Zenon seems to indicate that he owns large quantities of wine even outside the three nomes farmed by Zenon, namely in the Heliopolite (P. Z. 29, year 30). He asks Zenon to sell this wine as advantageously as possible. Of course he may have had vineyards in the Heliopolite too.

I see no reason to suppose that the vineyards of Apollonius were not subject to the regular taxation. They certainly paid the apomoira. Why should they not pay the other taxes?

Much scantier is our information about the production of olive oil. This branch of agriculture did not yet prosper in Philadelphia in the time of Zenon. However, he takes care to plant olive trees (P.S.I. 430, 1 ff.; P. Lond. Inv. 2313, recto, l. 7 ff.).

Orchards and market gardens seem to have played an important part in the economy of the estate. In P.S.I. 499, Panakestor is busy securing fig tree saplings, probably of a special sort; in P.S.I. 430 Zenon notes, "to receive saplings of the royal nuttrees,"—again a new culture on a new land. In the early Ptolemaic times, probably, many new kinds of fruit trees were first introduced into Egypt. It would be interesting to collect the information on this topic, on which there is so much in the papyri. To illustrate this point, I see no reason to suppose with Glotz (*Rev. d. études gr.*, XXXIII, 1921, 169 ff.) that in the accounts connected with the feasts of Adonis (P. Petrie III, 142) the κάρυα Χαλκιδικὰ and Ποντικά, Chalcidian and Pontic nuts, were imported into Egypt. They may as well have been grown in Egypt itself. It is worth noting how many fruits and vegetables are enumerated in the list of goods shipped from Philadelphia to Alexandria (P.S.I. 428, cf. Wilcken, *Arch.*, VI, 394): apples, royal nuts, pomegranates, olives, onions, garlic.

Flowers seem not to have been produced on the estate. They were bought elsewhere by the agents of Apollonius, at least for some religious ceremonies (P.S.I. 333 and 489, comp. vol. VI, p. XV).

Among the vegetables a special place was occupied by garlic. We have seen that large plantations of garlic existed in the territory of Hephaestias (P. Lond. Inv. 2097, l. 14 ff.). At Philadelphia, too, Zenon tried to introduce the cultivation of two special sorts of garlic; that of Tlos and that growing in the Oasis, or in a special Oasis in Egypt (Τλωικὰ and Ὀασιτικά). In P.S.I. 433, year 36, Euempolus informs Zenon about his planting of garlic, probably on the border land of the estate (ἐπὶ τῆς πέτρας). Zenon needs garlic to send to Alexandria (εἰς τὰς ἀποστολάς) and prefers especially the two sorts mentioned above (cf. P.S.I. 428, 85). I cannot follow Vitelli in his note to P.S.I. 323 (vol. VI, p. X); he understands Τλωικὰ as Τρωικά, an obscure place in the Fayum. Tlos in Lycia was situated in one of the provinces of Egypt; the whole region was famous for its garlic and was perfectly well known to Zenon, the man of Kaunus. He tried therefore to grow this sort in Egypt and the attempt was a success. The Ὀασιτικά seems to be a prod-

uct of Egypt. The document P.S.I. 332, year 29, speaks probably about shipments of this kind of garlic to the Fayum, perhaps for planting purposes (cf. Wilcken, *Arch.*, VI, 387).[79]

Good honey in abundance was produced by the bees of the Fayum. There was a special place there called Ptolemais Μελισσουργῶν, i.e., Ptolemais of the beekeepers (P. Tebt. 609, verso). Honey was shipped by Zenon to Alexandria in great quantities (P.S.I. 428), and Artemidorus asks Zenon to buy honey for him at Philadelphia (P. Z. 42). This honey was certainly produced on the estate. In P.S.I. 426, a man who was probably a beekeeper complained to Zenon that he had received no quarters in Philadelphia and could not get the promised allowance in grain. Moreover, he cannot secure any bees, and it is just the time before the second harvest of honey begins. The man seems to have been invited to Philadelphia as a specialist in beekeeping. Many times we hear of honey being bought in Philadelphia (P.S.I. 512 and 535; cf. 524). A man of the name of Sostratus is in charge of the matter of honey in the first years of Euergetes (P.S.I. 391 and 524) and also earlier in the year 34 of Philadelphus (P. Lond. Inv. 2092, l. 11 ff.). The last document is interesting as regards the management of this industry by the State and the estate. To Demetrius, the writer of the letter, some money was owed by Zenon. Zenon advised Sostratus to pay the debt out of the sale of the honey. But the honey had already been sold by

[79] The attempts of the first Ptolemies at improving vegetable culture in Egypt are well illustrated by the story of the cultivation of cabbage told by Athenaeus, *Deipnosoph.* IX, 9, p. 369 ff. After having mentioned different authorities on vegetables in general, especially Euthydemus of Athens (see Pauly-Wissowa, R. E., VI, 1505) and Theophrastus, who had enumerated the different kinds of cabbage which were grown in the Greek world, Athenaeus quotes *verbatim* Diphilus from Siphnus (the doctor of Lysimachus, Pauly-Wissowa, R. E., V, 1155) who related in his work the attempts of the Ptolemies to improve Egyptian cabbage which was bitter, by importing seed from Rhodes, famous for its cabbage: κράμβη δὲ καλλίστη γίνεται καὶ γλυκυτάτη ἐν Κύμῃ, ἐν δὲ Ἀλεξανδρείᾳ πικρά. τὸ δ' ἐκ Ῥόδου φερόμενον σπέρμα εἰς Ἀλεξάνδρειαν ἐπὶ ἐνιαυτὸν γλυκεῖαν ποιεῖ τὴν κράμβην, μεθ' ὃν χρόνον πάλιν ἐπιχωριάζει. Cabbage (ῥάφανος which is identical with κράμβη) was produced in great quantities in Apollonius' estate and a special sort of oil was prepared from the seed (?), P.S.I. 537. On the cultivation of pumpkins in Greece, see Athenaeus, *Deipnosoph.* IX, 14, p. 372 b ff.

the agents of Isocrates, the state banker, or treasurer and the agents affirmed that the money received therefrom did not cover their requirements. We may assume from this document that the beekeepers were dependent both on the State and on Zenon. The first claim was the claim of the State. The produce in honey was therefore sold by the officials of the treasury to cover the requirements of the State and the rest of the honey was divided between Zenon and the beekeeper. Zenon appears here again in the rôle of the farmer of the revenue from the beekeepers. We must not forget that the beekeepers belonged to the class of ὑποτελεῖς (P. Tebt. 5, l. 168 foll.).[80] The tax paid by the beekeepers was probably calculated in proportion to the yield of honey. In P.S.I. 510, Teos the beekeeper who came to Philadelphia from Busiris, paid 66 dr. and 4 ob. for seven months. For the payment of this tax to the administration of Busiris, Teos being a native of Busiris, Zenon was responsible; this shows him again in the rôle of a tax farmer. Over and again we encounter the same system: the producer, the State taking one part of the produce, the tax farmer and the holder of the δωρεά, who are identical, taking another part. The rest was freely sold by the producer.

[80] See Wilcken, *Grundz.*, p. 252.

IX. THE ESTATE OF APOLLONIUS AT PHILADELPHIA

Stock Breeding, Industry, Commerce, and Transportation

In discussing stock breeding we must distinguish the various branches of this industry which were handled differently. Live stock in Egyptian economy, both public and private, were divided into four large classes: (1) cattle destined for draft purposes,—oxen and cows; (2) animals for transportation purposes,— donkeys, mules, camels and horses; (3) beasts and fowl bred for slaughter and for sacrifices,—calves, lambs, kids, swine and geese; (4) wool-bearing animals,—sheep and goats. Milk cattle as such were not specially bred in Egypt, although cheese was made and eaten in large quantities, especially that made from goat and sheep milk. Let me deal with each class separately.[81]

We do not know the number of draft cattle on the estate of Apollonius, but we must assume that the estate kept scores if not hundreds. We have seen that Zenon had to furnish draft cattle to his farmers as they possessed no cattle whatever. This required large numbers of oxen and cows. In P.S.I. 509, year 30, one of the herds of draft cattle on the estate is mentioned. Panakestor makes a contract with the farmers of the pasture tax (*ἐννόμιον*) of the Arsinoite nome in the presence of Zoilus the oeconome, and Diotimus his secretary. Panakestor declares fifty cows and oxen and thirty donkeys as liable to the tax. Another herd (P.S.I. 351, year 32) was sent to the pastures of Hephaestias;-but the cattle found no pasture there, only *πυρίνη*, i.e., wheat fields already harvested. In P.S I. 409, the number of calves which belonged to Apollonius and

[81] No good investigation of the treatment of cattle by the State in Egypt exists. I shall make a few suggestions in my commentary on P. Tebt. 703; see meanwhile my article in the *Journ. of Eg. Arch.*, VI (1920), 173 ff. One of the most important questions is to understand what is meant by the term *βασιλικὸς* in connection with different classes of cattle As regards the draft cattle (*γεωργικὰ κτήνη*), I am now inclined to think that it was cattle held by the crown peasants but owned by the King.

which were fed in the calf stable (μοσχοτρόφιον) of Philadelphia was eighty-one. Draft cattle were also used for breeding. Cows seem to have been more appreciated than oxen, by the farmers, no doubt because of the milk which they gave in addition to their work (P.S.I. 577).

Of the relations between the estate and the crown peasants in respect to the draft cattle, we are ignorant. Later, in the second century B.C., as is shown by P. Par. 63, l. 173 ff., the cultivation of the royal land by the βασιλικοὶ γεωργοί, the crown peasants, was of paramount importance. If there was need of supplementary cattle besides the royal cattle, i. e., I suppose, the cattle of the crown peasants, this cattle was requisitioned without mercy from everybody, be they native or Greek soldiers, the governors of the nomes themselves or even "somebody else occupying a still more influential position who owned land" (κἂν ἕτερός τις ἐμ βαρυ[τέ]ραι κείμενος ἐ/ξουσίαι [κεκτ]-ημένος ᾖι). It seems natural to suppose that the last class of landowners were the holders of lands ἐν συντάξει, salary land, or ἐν δωρεᾶι, granted land. But the expression κεκτημένος points rather to people who *owned* land, that is, had acquired it in hereditary title in one way or another, a process which was almost unknown in the third century B.C., but had spread widely in the second.

Nevertheless even in the third century the cultivation of large tracts of crown land in the estate of Apollonius by crown peasants may have had the same consequences: obliging the landholder to help the peasants in case of need with his own cattle. His interest in doing so, taking into consideration the relations between the peasants and the landholder, as we know them, is obvious.

Calves bred from the draft cattle belonging to the class of royal cattle which was used probably by the crown peasants in their agricultural work, were kept in special stables (μοσχοτρόφια) supervised by special agents (μοσχοτρόφοι) and were fed at the expense of the villages to which the stables belonged (see P. Tebt. 703, and my forthcoming commentary on it). They were used mostly for sacrifices (ἱερεῖα) at the great feasts of the Greco-Egyptian religious calendar of the Ptole-

mies.[82] A calf stable of this kind existed at Philadelphia also (P.S.I. 409, no date; cf. 438, 600, 604). A man specially appointed for the purpose supervised this stable (cf. P.S.I. 375, 4). There were kept in this stable fourteen royal calves and eighty-one calves belonging to Apollonius. Great quantities of Apollonius' calves were used for sacrifices: forty-two for the sacrifices at the famous Pentaeteris of Philadelphus; eighteen must be sent to Canopus and one must be sacrificed at the feast in honour of the divine brother and sister, Ptolemy and Arsinoe (see P.S.I. 431; cf. 429). A special tax, *φυλακιτικὸν ἱερείων*, was paid on the guards watching these animals (P.S.I. 386). The grown calves, no longer fit for sacrifice, seem to have been distributed among the men connected with the estate (P.S.I. 409). It is worth noting that the feeder of the calves of Philadelphia reports on the calves of Apollonius only, leaving aside the crown calves. We may suppose that he reported on these to somebody else, not to Zenon.

We have seen that pigs were also used for sacrifices (P. Lond. Inv. 2097, 3, where the herds of swine pasturing in the territory of Hephaestias are called *ὑικὰ ἱερεῖα*). The breeders of swine according to P. Tebt. 5, 168 ff., were *ὑποτελεῖς*, like the bee-keepers. This means that they were obliged to have a special license from the state for practicing their profession and that they paid a part of the produce of swine to the state. Large quantities of swine were bred in the estate of Apollonius (P. Lond. Inv. 2097). The manager of this department was *Herakleides*, to be distinguished from Herakleides the vine-dresser. In P.S.I. 384, year 38, he is defined in a letter to Zenon as "the man who deals under you with the *ὑική*" (i. e., *ὠνή*, which means farming of the swine trade): *τῶν ὑπό σε ὑικὴν πραγματευομένων* or *ὁ ὑπό σε ὑικὴν πραγματευόμενος*. In P.S.I. 379 and 381, years 37 and 38, he received from the *ὑοφορβοί* (swine breeders, one of whom lived at *Δικαίου Νῆσος*) their *φόρος*, i.e., their rent in kind, a certain quantity of young pigs.

[82] No exhaustive treatment of this important question exists. See, however, Plaumann, P. Grad. 6. The correspondence of Zenon furnishes much new data on this most interesting point; see especially P.S.I. 364, 409, 539, etc.

It seems therefore that the collection of the rent paid by the swine breeders was farmed in Philadelphia to Zenon who had special agents to collect the rent. He himself paid therefore a special sum to the state, standing in the same position as that which he occupied in relation to the beekeepers. He probably also collected the tax paid by swine owners who did not belong to the class of professional swine breeders. Swine, like the other stock, were subject to the pasture tax, the ἐννόμιον, paid by the sub-managers of the estate (P. Lond. Inv. 2097).

In the same position certainly were the breeders of geese (χηνοβοσκοί). We have no documents in the correspondence of Zenon dealing with these people. But in P.S.I. 534, somebody sends to Zenon twelve geese and asks that baskets and donkeys be sent to him to take away still more geese. I suppose that the writer of this letter is either a χηνοβοσκὸς or an agent of Zenon for collecting the rent from the breeders of geese. It is interesting to note that some of the inhabitants of Philadelphia owned geese (Artemidorus, in P. Z. 42).

Zenon seems to have been a great lover of rare and fine hens. P.S.I. 569 is a letter written by Philinus in which Philinus informs Zenon that he has sent him some special cocks and their "sisters" of different colours (note the same expression as that used for Ptolemy and his wife-sister!). This love of good cocks is again a purely Greek trait (cf. P. Lond. Inv. 2098 about some eggs of Egyptian fox-geese).

We find no special information in the correspondence of Zenon about donkeys. Donkeys were common in Egypt, and were probably kept in large numbers for transporting the agricultural products from the fields to the storehouses and thence to the river. We shall deal with this topic later, but it is an interesting point that Zenon used for this purpose not only donkeys but camels (P.S.I. 562, year 30; cf. 569, 11). This was a novelty, as camels are almost never mentioned in the texts of the Ptolemaic period (Wilcken, *Grundz.*, p. 373).

Great attention was paid by Zenon to horses which were probably kept with the donkeys and managed by the same agents. An instructive document is P. Lond. Inv. 2095. Jason has in his care some κτήνη, probably donkeys and horses which were kept on the pastures near Σύρων κώμη. The farmer of some

land in this part of the estate, Petobastis (see above p. 87) failed to furnish hay to the animals and grain to the men. The two shepherds, *Asclepiades* and *Apollonides*, threatened Jason with departure if they did not receive their salaries. Jason had the greatest difficulty in getting money. He applied to *Glaukias* but Glaukias had none. So he was obliged to pawn some pieces of harness to a money lender. Of the same nature is the letter P.S.I. 405 (cf. 424) where *Hegesilaus*, one of the superintendents of the horses (P.S.I. 371, 18), asks Zenon to order *Theopompus* (cf. P.S.I. 405, 17, 21 and 433, 6) to deliver hay for the horses lest they starve. In other documents grooms are mentioned: in P.S.I. 371, 14 and 19 they receive their salaries in kind and also receive some wheat to pay the tax collected for the payment of the veterinary surgeons (*ἰατρικόν*); six people are named in P.S.I. 371 as grooms: *Numenius*, *Stephanus*, *Heliodorus*, *Aristomachus*, *Apollonius*, *Horus;* all but one are Greeks. The grain is paid to them, as in P. Lond. Inv. 2095, by a farmer, Labos. Of these men Numenius appears again in P.S.I. 527, a list showing the distribution of horse harness to different men, one of whom belongs to the M mphite *δωρεά*. The man who distributes them is Glaukias (cf. P.S.I. 427, 438, 439). The same topic occupies Zenon in his agenda (P.S.I. 430, l. 4 ff.).

Thus we meet again with a large department in the husbandry of the estate, that of draft cattle and especially of horses. At the head of this department are the same men whom we met as superintendents of the affairs of the estate in the neighboring villages, Jason, Glaukias and a special agent, Hegesilaus. Herdsmen or grooms take care of the horses; almost all are Greeks. We know eight of them. Like the farmers, the superintendents of parts of the estate and the vinedressers, they receive salaries in money and in kind, and also hay for their animals. No wonder they are Greeks; the Egyptian fellahin and the Egyptian donkeys and camels of our own time are still not familiar with horses and do not like them.

For what purpose Apollonius kept horses we do not know. In some of his travels Apollonius drove in horse carriages, but I am sure that his main purpose was to have horses to sell for

the use of the army (see below, App. V) and perhaps of the state mail (Wilcken, *Grundz.*, p. 373).[83]

Horses and donkeys were used also for organizing hunting expeditions into the desert. Hunting was not a mere sport in Egypt, but was regarded by the State as a good source of income. No one who did not receive a special license and did not pay a special rent to the state was free to hunt or to fish in Egypt.[84] In this way the hunting expeditions sent out by Zenon were probably organized. The hunters, headed by a special agent (in P.S.I. 350, *Nicon* is so named) received horses (P.S.I. 527) and salaries (P. Petrie III, p. 199 and 321). Zenon himself was fond of hunting as a sport. On one of his expeditions for hunting wild boars in the δρυμὸς of Philadelphia his life was exposed to great danger; he was saved by his Indian dog named Taurus, which was killed by the boar. According to the fashion of the time Zenon ordered an epitaph for this dog to be written in verse. Among his letters two versions of this epitaph are preserved (P. Z. 48). Who knows but that some fortunate excavator will perhaps find at Philadelphia the grave of the brave dog and its epitaph on stone, not on paper!

The Greeks in Egypt kept all their native habits and customs. We have seen how they extended viticulture, introduced the cultivation of olive trees, imported new sorts of fruit and vegetables, acclimatized the animals to which they were accustomed. One of their peculiarities was their predilection for woollen and not linen clothes. We do not know how important sheep and goat breeding was in the Egypt of the Pharaohs, but under the Ptolemies certainly, and in the Fayum especially, sheep and goat breeding assumed very large proportions. The breeding of animals, like the planting of the vine, was one of the most common occupations of the Greeks in their mother country and represented on the other hand a good investment for Greek capital, the animals being the private property of

[83] The relations between the ἱπποτρόφια of Apollonius and those of the King are not clear. Apollonius was probably regarded in this respect also as a general farmer of the rent paid by the ἱπποκόμοι to the State. But this is a mere hypothesis.

[84] P. Meyer, *Klio*, XV (1918), 376 ff.; P. Ryl. II, 98 a; Preisigke, *Sammelbuch*, No. 285 ff.

their owners, as far as the Greek population of Egypt was concerned.

On the estate of Apollonius sheep and goat breeding was a matter of great importance. Four paragraphs in the agenda of Zenon are devoted to this topic. Here again we have no statistics. Large herds of sheep and goats are mentioned in the correspondence of Zenon repeatedly, all of them living on pasture lands of the different villages situated in the territory of the estate, and of some villages of the Memphite nome (P.S.I. 368, 377 b and a, 346, 381; P. Lond. Inv. 2084). The managers of this department of husbandry on the estate were *Jason* and *Herodotus* (esp. P.S.I. 368; 360, 4; 372, 14 and 429, 13). Under them worked regular herdsmen. The report of one of them is the most instructive document of this series (P.S.I. 368). The herdsman, whose name is lost, writes about his income and expenses. His income is derived from payments of other people's cattle pasturing on the pastures farmed by him, from the sale of young animals and from wool. His expenses are the salaries of the herdsmen, the purchase of hay and of food for the dogs.

The relations of Apollonius and Zenon to the State as regards the pasturing of the herds were not different from those of other inhabitants of Egypt. Zenon is not the master of the pasture lands in the limits of the estate. He pays the pasture tax for his herds just as others do (P. Lond. Inv. 2092); or, he or his agents rent the pastures from the state; as a farmer of these *νομαὶ* he exacts the tax from others (P.S.I. 368) for whom he is responsible to the State. Zenon's agents for this purpose were probably *Kallippus* and *Amortaeus* of P.S.I. 361, year 35, to whom the nomarch Maimachus rented some *νομαὶ* near the shrine of Isis. The conditions are the same in the Memphite *δωρεά*. At a place Taskry, probably in the Memphite nome (P.S.I. 380), the local crown peasants protest against Apollonius' herds of goats grazing on the fields after harvest; the peasants claim these pastures for their draft cattle. No doubt these *νομαὶ* were rented to the agents of Zenon for his herds of goats. Finally in the year 35 (P.S.I. 362) the other nomarch, Damis, informed Zenon that he had given some pasture land to the Arabs. These Arabs we have met already.

They lived on the estate as a tribe and asked through their tenmen (δεκατάρχαι) to be given as a chief, epistates, either Sostratus, the brother of the nomarchi Damis and Etearchus, or Maron, the well known sub-manager of the estate under Panakestor. Of these tenmen one has a Greek, another an Egyptian name, but all of them were certainly Arabs (see Addenda p. 179). It seems that these Arabs were either prisoners of war (αἰχμάλωτοι) or emigrants from the borderland between Palestine and Arabia. They seem to have been shepherds who went to Egypt with their herds of sheep and goats (P.S.I. 388, 56). This interesting fact may be explained as one of the attempts at the acclimatization in Egypt of a new breed of sheep, the Arabian breed ('Αράβια, see P.S.I. 429, 17; 377, 14, cf. P. Hib. 36, 6. 11). It is not surprising that with the sheep, the Ptolemies took the shepherds who knew how to care for them. The interest of Philadelphus in the fine sheep of Arabia is shown by the fact that in his well known procession there were three hundred Arabian sheep, thirty Ethiopian and twenty Euboean sheep, and other rare animals (Callix. in Athen. 5, p. 201 B). The borderland of the desert in the Fayum was exactly suited to the animals of the Arabian desert. Another new breed of sheep imported into Egypt by the Ptolemies was the Milesian breed (Edgar, P. Z. 24, Intr.). This again is not surprising as the marshy land on the banks of the lake was just the type of land to which they were accustomed in the marshy plain of the Maeander. Another example of the effort of Philadelphus to acclimatize new animals is the letter of Tubias (P. Z. 13), the sheikh of the Arabs in Palestine, informing the king that he is sending him some horses, donkeys and animals cross-bred by a donkey and a wild ass.[85]

[85] The attempt to improve the native breeds of animals by importing better breeds from outside was common in the Hellenistic period. In his Memoirs, King Ptolemy Euergetes II (see Athenaeus IX, 17, p. 375 d; Fr. hist. gr., III, p. 188, fr. 9) tells of a special breed of white pigs which he has seen at Assus in Asia Minor; and he says that King Eumenes of Pergamon was eager to buy good specimens of this breed for large sums of money,—certainly with the aim of improving swine breeding in the Kingdom of Pergamon. A good parallel to the letter which I have mentioned which speaks of remarkable cocks and hens, is furnished by another passage of the same Memoirs dealing with pheasants, of which a great quantity

No doubt the chief aim in introducing new breeds of sheep into Egypt was to get a finer quality of wool, the native Egyptian wool being one of the worst. Of course the herds provided the estate with cheese too (P.S.I. 606; 618, 1, and esp. P. Lond. Inv. 2095, l. 15, where the price of one talent of cheese is between 10 and 6 dr.); cheese was sold in the villages by special merchants who had farmed this trade from the state (P. Petrie III, 58 (a)) along with the trade in salt meat. But the chief product was wool (P.S.I. 368, 399, 429). Raw wool seems to have been sold and bought in Egypt without restriction, except for the special tax for selling it on the market, and of course for the taxes paid on the sheep and goats. No restrictions were imposed on making woollen stuff and woollen clothes in one's own house (P.S.I. 364; P. Z. 29, etc.), but the manufacture of woollen stuffs for sale was regulatcd by the State in the same way as the manufacture of linen stuff and clotehs.[86]

Before the publication of Zenon's correspondence we could only guess at this, as the part of the R. L. dealing with this topic was practically entirely gone and other documents were scanty. Here again the Zenon papyri throw new light on the whole problem.

A large factory of woollen stuffs was owned by Apollonius at Memphis. It was run probably on the Greek model by using either the labour of slave girls or of hired girls (παιδίσκαι), the

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lived in the palace of the King at Alexandria. Fr. hist. gr., III, 188, fr. 10, cf. fr. 3; Athenaeus XIV, p. 654c. I do not discuss the problem of the relations between the State and the sheep breeders, a long and difficult question. The φόρος paid for the sheep (προβάτων) and goats (αἰγῶν) was, in my mind, not different from the φόρος paid for the pigs and geese. This in no way implies ownership by the State, but only a share in the produce received by the herdsmen from their sheep and goats. See P. Ryl. II, 73 and p. 314 ff. We must not confound this rent with the payment for the use of the pastures. Whether Zenon paid the rent (φόρος) for the sheep which belonged to the estate or not, we do not know as yet, but I have no reason to suppose that he did not.

[86] See the excellent book of the late M. Chwostoff, *Studies on the Organization of Industry and Commerce in Greco-Roman Egypt*, vol. I, *The Textile Industry* (Kazan, 1914), p. 73 ff. (in Russian); Th. Reil, *Beiträge zur Kenntnis des Gewerbes im Hellenistischen Aegypten* (Leipzig, 1913), p. 5 ff. and p. 93 ff.

first interpretation being preferable. In P.S.I. 485, year 28,—some scraps of an interesting letter, Addaeus, the Memphite manager, writes about these παιδίσκαι whom he calls κασσηπήτριαι,[87] cloakmakers, (Vitelli reads κασια.ητριων) and about certain χιταναλλα or κιθαναλλα (to be compared with γνάφαλλα, wool). In P. Z. 24, year 30, Apollonius writes to Zenon: "You did well in giving Milesian wool to the παιδίσκαι at Memphis; give another order to deliver them as much of it as they need" (cf. P.S.I. 605). And in P. Z. 25 we meet one of these παιδίσκαι named Sphragis, a slave name (cf. the name of the girl slave bought by Zenon in Palestine, P. Z. 3), who was robbed of some wool on her way from Sophthis to Memphis or Philadelphia. I can explain these documents only by assuming that Apollonius ran a wool factory at Memphis on Greek lines by means of girl slaves, bought probably in Syria and Asia Minor.

Another system, the Egyptian, was adopted by Zenon in Philadelphia. In P.S.I. 341, year 30, a Greek family of specialists, weavers of women's woollen clothes, offered their services to Zenon and were ready to emigrate from their place Moithymis in the Memphite nome, to the splendid town of Philadelphia of which the chief, they say, is such a nice man. They proposed no conditions, probably because the conditions were well known. They asked only for quarters (κατάλυμα). Carpets in large numbers were also produced in Philadelphia (P.S.I. 442). This time the weavers are natives. One of them, *Pais*, seems to be the chief. The system under which they work is just the same as that known for the linen industry: work on order for the state and remuneration in money per piece. In P. Z. 29, year 30, Apollonius gives an order to Zenon to pay for the carpets out of the money received from the sale of a certain amount of wine from the Heliopolite nome.

Contemporaneously with the introduction and development of the woollen industry, Zenon tried to attract linen weavers to Philadelphia. P.S.I. 599 presents many similarities with P.S.I. 341. Some ὑφάνται, linen weavers, inform Zenon that they are ready to settle down at Philadelphia and to work there. Their conditions are: for combing and washing one talent of

[87] A composite of κασός (or κασσός),—a cloak, and ἠπήτρια,—a woman tailor; cf. κασοποιός,—cloakmaker.

flax, 1 dr. and for weaving one othonion, 3 dr.; or, 1½ ob. to a man and ½ ob. to a woman daily, with the obligation to furnish them one servant as help. Such a servant, probably a slave, was Choirine, the loom manager (ἱστουργός) who received her pay in grain (P.S.I. 371).[88]

In all these documents Zenon, and behind him Apollonius, appear in the same rôle as in the management of the beekeeping and swine breeding. Here as there, they have to do with the class of ὑποτελεῖς, people working in their specialty for the State, with the obligation to share the produce of their work with the State, and here as there, they act as the farmers or contractors, that is, as intermediaries between the State and the workmen, responsible for the workmen to the State. I think that *mutatis mutandis* the same conditions prevailed in the Memphite factory also. Certainly the products of this factory and of the small house-factories of Philadelphia were delivered by Zenon to the officials of the state in the same way as was done by the farmers of the δωρεά.

The large village of Philadelphia with its mixed population of different employees on the estate, crown peasants, workmen of different kinds, many attracted by the great building activity which was going on in Philadelphia, new settlers of Greek origin, especially military settlers, had its own complicated needs which were partly covered by the production of the estate itself. Moreover, Philadelphia certainly was an administrative and economic centre for a large district of many villages. No wonder that city life from the economic point of view developed rapidly at Philadelphia; and first of all comes retail trade in the different commodities of daily life: oil and salt, bread, meat and fish, wine and beer, clothes and shoes, et cetera.

I cannot deal here with the organization of retail trade in Ptolemaic Egypt in general. As a rule no free trade existed

[88] In P.S.I. 404, στίππινον (i. e., στυππεῖον) is mentioned. It is sold for 9 dr. a talent, but it must first be combed. It lies somewhere in the section of the estate managed by Pataikion and there is nobody to guard it. P.S.I. 573 deals with στιπεουργοί, who were working or intended to work on the estate. I do not know whether flax or hemp is meant; in the Byzantine epoch στιππουργὸς means the same as λινουργός. See M. Chwostoff, *op. cit.*, p. 122, note 2. But I am confident that in the Zenon papyri στίππιον means hemp or coarse flax for preparing ropes used especially on ships.

in the cities and villages of Egypt except perhaps at Alexandria.[89] The State regarded all retail traders as its agents, who helped the State to sell its goods to the population. Thus most of the shops were run by people who received special licenses from the State and were obliged to give up to the State a large part of their profits, the State taking an active part in determining the retail prices of the goods. Take for example the trade in oil and wine as depicted above. The shopkeepers were not solely agents of the State but they were in constant and close relations with it (see the mention of ἐλαιοκάπηλοι in Philadelphia in the unpublished letter of the Zenon correspondence in Manchester, P. Ryl. 8). It was the same for the linen and woollen industry, for most of the more important and even for the minor trades. On these general principles, also, the retail trade in Philadelphia was organized.

Our information on this topic is of course fragmentary but sufficient to give a general idea of this side of life in Philadelphia. The most copious evidence which we possess refers to the manufacture and trade in beer. We have known but little of the organization of this trade in the Ptolemaic period. The documents of Philadelphia are the first to give us a comparatively good idea of it.[90]

In the year 31 (P. Z. 32) Apollonius writes to Zenon as follows: "you must know that X (the name is not preserved) has rented the beer shop at Philadephia and has assumed the obligation to pay to the treasury according to the daily output of beer made from 12 artabae of barley. Make a contract with him and after having taken from him his sworn declaration let him have the beer shop. Appoint also a trustworthy collector who will control the business. The present brewer shall fulfill his obligations for the time he managed the business."

Of the same beer shop Apollonius speaks in his letter P. Z. 33, a little later in the same year. The brewer *Amenneas* was

[89] See my article in the *Journ. of Eg. Arch.*, VI (1920) 177.

[90] For the most recent treatment see Edgar, P. Z. 32, Intro. He is wrong in identifying φόρος and σύνταξις, which are quite different; σύνταξις means the supply of raw material, φόρος the payments by the brewer in money out of the price received for the sale of the beer to the customers.

accused by his treasurer or controller of having said something which amounted to a crime. Apollonius sends a special judge to hear the case and threatens that if Amenneas is convicted he should be led through the streets and afterwards hanged. The matter seems to be of a political rather than of an economic nature.

We knew before the discovery of the papyri mentioned above that the ζυτοποιοί and ζυτοπῶλαι, beer brewers and beer shopkeepers, were generally the same, beer brewing being very simple and requiring no special machinery. We knew also that the rights of brewing and selling beer were not free to everybody, but that the brewers received special licenses and paid a special φόρος, or rent. The license of course took the form of a special contract concluded by the brewer with the farmers of the beer industry (ζυτηρά) and the state officials (a special chapter in the R. L. treated this farming: fr. 6 (a) 13, and (h) 3). Now we know much more. We know that the brewers received their raw material, their barley, from the State or from the farmer of the beer industry in the form of a special allowance which they were obliged to transform into beer. To this allowance (σύνταξις) reference is also made in P. Lille 3, col. II, 49-53; here 3000 art. of barley and 900 of sesame were delivered by the state storekeeper or sitologue to the oeconome on the account "of the beerfarm of the nome" (εἰς τὴν ζυτηρὰ[ν] τοῦ νομοῦ, cf. P. Petrie III, 87). The amount of the allowance received by each brewer determined the amount of his payment, of his rent. The beer which he brewed was sold in his shop exclusively, money for it being received not by him but by special treasurers and controllers who were of course either his accomplices or his bitter foes. The money was paid to the treasury and credited to the account of the farm. Here, after the cost of the raw material was deducted and a general account taken by the officials from the farmers of the beer industry (P. Par. 62, col. V, 1, in R. L. App. I), the brewers received what remained as their net income.

This organization is typical of many other branches of the retail trade. The State secured for itself by means of such organization both an assured sale for the barley which it collected from the crown peasants and farmers, and a share in the profits of the brewer.

We do not know precisely what part was played in these transactions by Apollonius. If he was the person who rented the shops of Philadelphia to the brewers, it may be assumed that in this special case he replaced the oeconome whose duty it was to rent such establishments. But I doubt very much that he did so. The shop was probably rented in the usual way, and Apollonius was then informed of the name of the shopkeeper and the conditions on which he received the license. But after the shop was rented, Zenon acting for Apollonius, had to perform all the functions which were usually performed by the farmer of the industry, that is, he had to conclude an agreement with the brewer and to appoint a controller and treasurer.

That the beer business was not an exception is shown by scores of other documents found in different villages of the Fayum dealing with other branches of trade. For Philadelphia this fact is illustrated by a curious and characteristic document, P.S.I. 402, undated. *Arentotes*, the boiler or rather roaster (φακηψός) of lentils, writes a letter to Philiscus the oeconome. He says that he pays a rent for selling 35 artabae of lentils a month. But (l. 4, ff.), "people in the town roast pumpkin seed (or pumpkins?). Therefore no one now buys any lentils from me. . . . They (the pumpkin roasters) come early in the morning, sit down near me and my lentils, and sell the pumpkin giving me no chance of selling lentils." He asks accordingly to be allowed to postpone the payment of his rent. Here again such a common product as lentils cannot be sold by everybody. There is a special man who has rented this trade from the State, liable to a special rent and to sell not less than 35 art. a month. It may be that his trade was hampered by the fact that pumpkins were not yet appreciated as a source of income for the State, and that the trade in pumpkins remained temporarily free; or it may be that the pumpkin trade was managed by the State in the same way as the lentil trade and that only the taste of the public had changed. In any case the picture given by our letter is a very interesting one. The fact that the letter was sent to Zenon by Philiscus the oeconome shows that he was interested in the affair, probably in the same way as in the beer business.

Perhaps still more curious is one papyrus of the small collection of the Zenon papyri now at Manchester in the Ryland Library (no. 8). The writer of this letter, which is addressed to Zenon, is *Bubalus*. We know him from some other letters quoted above in part. He seems to be one of the members of Apollonius' court, one of the former agents of Zenon. In P.S.I. 327, year 27, he is busy in importing goods for Apollonius from Syria; in P.S.I. 354, year 32, he tries to save the hay in the Memphite δωρεὰ from the soldiers who accompany the King on his journey through Egypt; in P. Lond. Inv. 1912, year 38, he is interested in his letter being delivered to Apollonius. In P. Ryl. 8, Phanias,[91] the secretary of the ἱππεῖς, demanded that food should be provided for his soldiers who were marching to take part in the feast of the Pentaeteria (see note 82). In l. 10 ff., Bubalus says: "you must know that X (the name is not preserved in full) who happened to be here said that somebody has farmed the meat trade (μαγιρικὴ) and would pay a rent to the treasury; he will provide food for the soldiers; in the same way the traders in oil who farmed the retail trade will deliver oil so that there will be plenty of everything." If Bubalus speaks of Philadelphia, as is likely since the letter is addressed to Zenon, we have another instance of an occupation which was farmed by the State, this time that of meat seller.[92]

Another example in another field is given by the documents referring to the public baths in Philadelphia. P. Lond. Inv. 2086 is an interesting complaint of a certain Isidora, a woman who rented from Zenon one of the baths in Philadelphia, not however the largest one mentioned at the end of the letter. This letter may be taken as a proof that at least the baths built, furnished and provided with water by the estate (P.S.I.

[91] This Phanias seems to be identical with the Phanias of P. Hib. 110. He may be also identical with the Phanias of P. Petrie III, 20 and P.S.I. 609, who had to do with the σῖτος ἀγοραστός,—the grain bought from the cleruchi, mostly for the needs of the army. See Rostowzew, Pauly-Wissowa-Kroll, R. E., VII, 166. One Phanias is mentioned also in P.S.I. 438 and 539, but this one seems to have nothing to do with military affairs. Cf. Lesquier, *Rev. d. études gr.*, XXXII, 364; *Dikaiomata*, p. 99.

[92] See P. Petrie III, 58 (a); Schubart, *Einführung*, p. 429; cf. Edwin Moore Rankin, *The Rôle of the μάγειροι in the Life of the Ancient Greeks* (Chicago, 1907). The μάγειροι in Egypt are retail traders in meat.

445 and 542, no date), were private enterprises not subject to the same treatment as was applied to the other branches of trade dealt with above. As a matter of fact, Isidora does not mention any official; she complains that Maron, not an official, charged her with four gold staters without any reason. But another document, P.S.I. 355, year 33, a receipt of the treasury to the bathkeeper Teos for the payment of his rent (φόρος), shows that baths were treated like the other businesses, regardless of the fact that they were built not by the State but by private individuals. The bathkeeper had to pay to the State a part of the income of the bath. In the case of Isidora, Maron and Zenon certainly acted both as the representatives of the owner of the bath and as farmers of the bath rent for Philadelphia. What Zenon's relations to the baths at Arsinoe were (P.S.I. 584), and at Κοῖται (P.S.I. 395), we do not know. It may be that these were Zenon's private enterprises.

Before finishing my survey of the economic life of the δωρεὰ of Apollonius let me pause a moment to examine another vital branch of this economic life, transportation. The extent of Apollonius' estate required a large number of draft animals to transport the produce from the fields to Philadelphia and from Philadelphia to the nearest navigable channel. The nearest landing place to Philadelphia was Kerke (Κερκή) on the main canal of the Fayum. We have seen that the estate owned many donkeys but they certainly were not sufficient for the requirements of the estate at the busiest season, following the harvest. In P.Z. 36, year 31 (cf. 36[a] in P.Z. V, p. 19), we find how Zenon secured the necessary number of donkeys for this season. The document is a contract concluded on the second of Pharmuthi, that is, at harvest time, with some farmers (γεωργοί). It is a loan of money given by Zenon to the farmers to buy donkeys, on the condition that if the money is not returned with the payment of the rent Zenon is entitled to take the best of the donkeys. I agree with Edgar that it was in this way Zenon attempted to secure the transportation of the grain from the fields to Philadelphia and from Philadelphia to Kerke.

At Kerke Apollonius had not only a large fleet of barges and ships but a dockyard for construction of new ones as well. The documents of Zenon's correspondence show that Apollonius

regularly built new ships. The main difficulty in this domain was to secure the necessary quantity of lumber. Trees are scanty in Egypt, and all the imported timber was apparently used in Alexandria as there is no mention of it in the documents concerned with shipbuilding outside of Alexandria. Thus the great preoccupation of a shipbuilder in Egypt was to keep the workmen provided with lumber. Of the Egyptian trees only two kinds are good for the construction of ships, the acacia and the sycamore. They grew sparsely all over the country, mostly in the villages and in the sacred precincts where they may have formed small groves. This explains why the sellers of wood in Egypt were for the most part the priests of different shrines. Besides the scarcity of wood another difficulty was that the trade in wood was controlled by the State from which must be secured special permission even for the sale of a single tree, nay, even for the sale of dry branches.[93] These conditions explain why *Spondates*, who was in charge of the construction of some ships in the year 35 (P. Z. 45), complains that the work is not progressing because he has no sycamore wood. He asks that as soon as possible the tree which was offered to him by the ibis feeders of Mea should be bought. The same situation exists in the year 38 (P.S.I. 382). It is expressly stated here that to purchase a tree special permission from Hermolaus the oeconome is required.

It is a pity that P. Lond. Inv. 2305 is fragmentary and not dated. It deals with the construction of a river or sea ship (κυβαία, cf. P. Z. 2; 12; P.S.I. 594) probably at Kerke. Beside wood large quantities of resin, wax, red chalk or red lead are used. One sees by the quantities of wax used in ship building why beekeeping was so important in Egypt. Compare also P. Z. 8 and 9.

The dockyard at Kerke was operated not only for the private needs of Apollonius. In P.Z. 39, year 33, Zenon was ordered by Apollonius to prepare as soon as possible some furniture for some large ships (ταυροκέρκουροι) which Apollonius in fulfilment of the order of the king, was obliged to have in readiness at Alexandria for the journey of the king's daughter, the royal bride, to

[93] I shall treat this subject in my commentary on P. Tebt. 703; cf. meanwhile my article in the *Journ. of Eg. Arch.*, VI (1920) 175.

Syria. It is worthy of note that Apollonius is probably under this obligation, not as the dioeketes but as one of the ship-owners of Egypt.

The ships and barges of Apollonius were used almost exclusively for the transportation of goods. The managers of the estate, Panakestor and Zenon, have no ship at their disposal for their journeys. Of course Panakestor asks Apollonius for one (P. Z. 19), but Apollonius gives an evasive answer. If Panakestor can rent the ship to some one else for the time he is not using it he may have one. Apollonius is not ready to pay the sailors for the time they are idle (cf. P.S.I. 357, year 33). The position of Zenon in respect to a special ship for his personal use is the same. Demetrius sends him in the year 36 a ship for his personal travel (P.S.I. 374).

Thus the fleet of Apollonius at Kerke is constantly engaged in transporting goods, above all, the products of the estate and goods bought for the estate (see P.S.I. 429 and especially 427 and 428). The shipments from the estate given priority were those which were sent as ξένια, gifts in kind to the King. These ξένια were in reality regular payments by the estate and the village for the maintenance of the King's court, although according to the personal character of the rule of the Ptolemies they were regarded as personal gifts from Apollonius and the population of Philadelphia, their contributions, for giving a "crown," to the King on memorial occasions, such as the anniversary of the royal birthday, of the coronation day, et cetera. In P.S.I. 537, two ships are found to have been sent to Kerke for transporting some xenia; one was left behind and was used for the transport of wheat mixed with rye (?) or of oil made out of radish. Still more interesting is the letter of Apollonius, P.S.I. 514, year 34 (cf. P. Lond. Inv. 2320): "The King has many times given the order about gifts for his 'crown.' Make therefore the utmost effort, transforming night into day, for shipping what is due from Philadelphia according to the schedule, and do it as quickly as possible; the extreme limit is three days from this day for getting the xenia to Alexandria in time. The matter is important and requires haste. Moreover send what is due from us for the birthday of the King at the time which I appointed in my last letter."

Here again Apollonius is responsible for the payment by Philadelphia of this extraordinary tax; for that, as a matter of fact, is what the xenia were.

Kerke was only one of the stations of the commercial fleet of Apollonius. Some documents (P.S.I. 437 and P. Lond. Inv. 2093) show that Apollonius was the owner of a large commercial river fleet which he used probably not alone for transporting his own goods. It is a pity that we do not know the exact date of P. Lond. Inv. 2093. The date as read by Bell is κδ̣ i.e. year 24; it seems that this papyrus belongs rather to the earlier part of the correspondence of Zenon, to the time when he was the chief manager of the private economy of Apollonius. But some other papyri, e. g., P.S.I. 601, 619 and 437, show that Zenon even after he came to Philadelphia still had to do with the transport business of Apollonius and his stolarches Kriton (mentioned in P.S.I. 601). The whole series proves that the agents of Apollonius transported grain from and to different nomes of Egypt; the Memphite, the Hermopolite, the Kolchonoyphite, the Gynaekopolite, the Prosopite, the Diospolite; and that they acted much like a big transportation company, employing many ship owners (*ναύκληροι*) and captains (*κυβερνῆται*). I can not treat this important matter in this article as proper treatment would require a special study of river transportation in Ptolemaic Egypt.[94]

[94] One of the most interesting points in P. Lond. Inv. 2093, which requires a special investigation, is the mention of a special payment called *διαχειριστικόν*, to the naucleri, and the mention of special *χειρισταὶ* who worked along with the captains of galleys or barges. It reminds me of the designation of the corporation of naucleri and captains and other people occupied in the State transport by the name *χειρισμός*,—"service," which term is used in some documents of the Roman epoch. See P. Giess. 11, l. 11 and part II, p. 160; Wilcken, *Chrest.*, 170, l. 27, note, and 444, l. 11, note. This term implies that the corporations occupied in the transport business were in no way private, free associations employed by the State, but organizations perhaps formed and certainly controlled by the administration. The origins of this system both for the river and the sea transport are surely early Ptolemaic. One of the most important instances for proving this point is P. Lond. Inv. 2093.

X. CONCLUSIONS

My investigation of the documents of the correspondence of Zenon in the preceding chapters has shown how important is this correspondence for an understanding of life in early Ptolemaic Egypt. The central features of this correspondence are, on the one hand, Apollonius and behind him the King himself; on the other hand, a part of the land of Egypt,—Philadelphia, the creation of Apollonius and Philadelphus, typically representative of the newly created centres of economic and social life.

I have already pointed out many times that the figure of Apollonius dominates the correspondence of Zenon, not so much as one who administered the economic life of Egypt in his quality of dioeketes but more as a typically shrewd business man, a big capitalist who knew how to use his influential position to the advantage of his own private affairs and to increase his own wealth. But he did this not in opposition to the tendencies of Philadelphus: he worked throughout in full sympathy with the system of Philadelphus for the reorganization of the economic life of Egypt.

The ideas which dominated Philadelphus in his reconstruction of Egypt appear, sometimes in full relief, in or behind the activity of his minister Apollonius as reflected in his business letters. The Ptolemies in Egypt inherited from the Pharaohs a highly elaborated administrative and economic organization of a peculiar land with an economic basis quite unique when compared with other parts of the civilized world. The leading idea of the ancient Egyptian state, that of the Fourth, Eleventh and Eighteenth Dynasties, was a strict coordination of the economic efforts of the whole population to secure for each member of the community and for the community as a whole the highest possible degree of prosperity. This coordination was created by the Kings inspired by the Gods, and thus the King and his servants were paramount in Egypt, above criticism and above all control. If the population wanted to be comparatively prosperous they had to obey the divine orders of the King. The King was therefore the quintessence of the State,

the very personification of the State, the emanation of the divine force which ruled the State and the nation. This leading idea was of course obscured in periods of trouble and unrest, in periods of foreign domination, but it never died out.

I have told already how the Ptolemies grasped this idea and made it their own, because it was the easiest way to govern Egypt and because it was in complete accordance with the personal character of the rule of the Ptolemies, who regarded Egypt as their private property, as their large house (οἶκος). Accordingly, the ancient system of a personal and bureaucratic administration of Egypt, with the economic point of view predominant, was restored, systematized and concentrated in the hands of the new ruler and his servants, his bureaucracy. The King, identical with the State, was the centre and the moving force of the life of the State; for him and through him worked the mechanism of the economic life of Egypt. Every forward step in the prosperity of every one of his subjects ought also to increase the prosperity of the State, of the King. Everybody worked not only for himself but preeminently for the State, for the King. For what purposes the income of the King was used, how the money paid by the population was spent, was entirely and exclusively the affair of the King, and nobody in the Kingdom need ask any question regarding this subject. The crown peasants must plow and sow their land, gather the harvest and pay their rent and the taxes; the artisans must attend to their crafts; the merchants must carry on their trade; the herdsmen must pasture their herds, and so on, all under the strict control of the State and under the obligation to give up a large part of the produce of their work to the King. Directly above them stood an army of officials whose duty it was to follow strictly the orders of their own superiors, and in the last instance the orders of the King. These orders were of course vested in the form of written laws, ukases of different kinds, instructions, et cetera, which were known or ought to be known to everybody, to officials and to the common subjects of the King. The aim of these regulations was to create order in the life of the State, and by this means to increase the income of the State, to make the payments of the subjects regular and secure. This economic purpose was paramount, and for it in

the last instance worked the whole administration of the land: the judges, the general administration, the police force and the highly developed financial and economic administration.

Egypt was the King's house, and the life of Egypt was run by the King as by a master who stood beyond any control and above every criticism. The duties of this master were to protect his house from attacks from without and to keep his house in order. The State, the nation, the people, for whom the rulers must work,—all these lofty ideas of the Greek philosophy of the Hellenistic age were of course familiar to the Ptolemies who were educated by Greek philosophers and had them in their service. Sometimes the Ptolemies made use of these ideas in their orders and instructions, covering with them as with a screen the brutal reality, but these ideas did not play any active rôle in their internal policy.

Moreover, as I have already pointed out, the machinery of the State must work smoothly and with regularity. Everything should proceed in order and according to a general plan. For elaborating such a plan and putting it into operation the Ptolemies made full use of the systematic and scientific genius of the Greeks,—their strict logic, their philosophical training. For the first time the administrative system of Egypt was, so to say, codified; it was coordinated and set into motion like a well organized machine, constructed for a special, well defined and well understood purpose. No discretion on the part of the state's agents was tolerated, although the whole system was based on force and compulsion, very often on brute force. The system of compulsory labour was the main feature of the Ptolemaic administration, and no opposition was tolerated. The only protest which was possible was to strike and to put oneself under the protection of the Gods. But we must not forget that for the native population the King was himself a God and perhaps the most powerful of all.[95]

[95] The ideas which I expound at the beginning of this chapter are a repetition, with some modifications brought about by the study of the correspondence of Zenon, of the ideas which I developed in my article, "The foundation of Social and Economic life in Egypt in Hellenistic Times," *Journ. of Eg. Arch.*, VI (1920) 161 ff. I hope to develop them more fully in my projected book, *Studies in the Economic Conditions of the Hellenistic and Roman World.*

After investigating conditions in Philadelphia as reflected in the correspondence of Zenon, we have before us just one piece of the work of the Ptolemaic machinery. Every phase of activity in Philadelphia is regulated by the administrative machine of the Ptolemies: agriculture, cattle breeding, industry and commerce are conducted on lines identical with those on which life in Egypt as a whole was run. Philadelphia was Egypt in miniature, and as our evidence is fuller for Philadelphia than for any other place in Egypt the Philadelphian documents supplement our knowledge of the early Ptolemaic Egypt in many essential points. It makes no difference that Philadelphia was a δωρεά, a granted territory, except that some parts of the usual machinery were replaced at Philadelphia by the private agents of Apollonius, who worked on exactly the same lines as those devised for the agents of the State, and were in constant touch with the regular administration of the nome. The estate of Apollonius was a part of an Egyptian nome just as was any other toparchy of the meris of Herakleides in the Arsinoite nome. For the population of Philadelphia Zenon was a State official, not different from the regular officials and tax farmers of a toparchy.

But this fact, that the δωρεά did not differ in principle from the rest of the territory of Egypt in respect to the organization of the administrative work and in respect to the treatment of the native and immigrant population, is not the only one which makes the correspondence of Zenon interesting and its study fascinating. There are in this correspondence other points not less important and not less interesting and new. Apollonius himself was a Greek and his entourage, his collaborators, were Greeks also. The court of Apollonius was the court of the King in miniature and Apollonius himself a little King as well. In dealing with the people who form the court of Apollonius we do not feel ourselves in Egypt; we meet Greeks, especially Greeks of Asia Minor everywhere, Greek names, Greek language, Greek habits, Greek costume. To realize that we are not somewhere in Asia Minor we should have to go down to the lowest layers of the court and our correspondence does not lead so far.

These Greeks were of course mostly natives of the Greek provinces of the Ptolemies and *ipso facto* were their subjects. But between them and the Egyptian subjects of the Ptolemies there is an enormous distance; they belong to two entirely different worlds. The Greeks serve Apollonius in the same way and to the same purpose as Apollonius and the other Greeks of the court of the King serve the King. They do it not because they have to, not out of any sense of duty or because of fear, but exclusively by their own free will, because they find this service both attractive and profitable. Such men as Demetrius of Phaleron may have had some ideal interest in helping Ptolemy, by saturating his work of systemizing his οἰκονομία βασιλικὴ with their scientific, philosophical spirit; the scientists, literati and philosophers of the Museum may have regarded Alexandria as another Athens, more quiet and more appropriate for research work undisturbed by politics; even Apollonius may have shared in some of these idealistic motives, although in his correspondence we find not a trace of it. But the members of his court of course worked exclusively for themselves, for creating for themselves secure and profitable positions and a pleasant life. For them Egypt and the court of Apollonius were as good or as bad as any other place in the world. These Greeks, accustomed as they were in Asia Minor to serve foreigners, were real cosmopolites, preserving of course some peculiarly tender feelings for their mother city. And how strange! In Egypt, in one respect, and in this respect only, they soon forget their old habits and customs. I mean their being, according to the definition of Aristotle, as many ζῷα πολιτικά. No sign of any political interest, of any part taken in the political affairs of the world, and this at a time when their mother cities still took an active part in that political life, sometimes more active than before! One cannot say that we have their business correspondence only. It is not true. Not all the letters of the archives of Zenon are business letters. Nevertheless there is not one word on politics or on anything except purely material interests. And they are educated people. For a brave dog Zenon procures epitaphs of a professional poet. This means that they all came to Egypt for one and only one purpose,—to enrich

themselves, being as obedient, sometimes as servile as possible; to enrich themselves by any means and to escape any responsibility for the means which they used for this purpose.

This spirit of Apollonius' court was of course the spirit of the Greek part of the Egyptian population as a whole, in the early Ptolemaic times. Gradually a political life will be built up in the half Greek city of Alexandria; the boisterous spirit of a Greek citizen will make its way through the indifference and the materialism of the daily life; but this spirit will show itself in intrigues, in pointed words, sometimes in turbulent riots only, not in pursuance of political ideals. And the same spirit was probably the spirit of the Ptolemaic army. Most of the members of the leading circles of Alexandria belonged in one way or another to the Ptolemaic army. Their spirit was certainly the spirit of the army too. The soldiers are in Egypt, and not in Asia Minor or in Syria, because the pay is better, life is easier and there is less probability of losing their lives in battle. They fight, these mercenaries, but without any enthusiasm, just to show that they are good professionals, and so as not to depreciate the value of their services on the military market.

This Greek element was exactly the element to which the Ptolemies were bound by indissoluble ties of common origin, common ideas, common past and common interests. The Greeks brought the Ptolemies to Egypt, and with the Greeks they stood and fell. The Ptolemies had to reckon with them, with their spirit which originally was probably the spirit of Alexander's generals too. But the spirit of the Kings, Soter and Philadelphus, changed very fast. They soon began to regard themselves not as generals of a conquering army, temporary masters of a conquered land, but as Kings of Egypt, heirs of the Pharaohs. Very soon they became aware that their only base was Egypt and they began to regard their possessions outside Egypt as foreign provinces, in the same way as the Pharaohs of the Eleventh and Eighteenth Dynasties did. The age old spirit of an ancient civilized country, its traditions, took hold of them. Subconsciously and consciously they felt that Egypt, and Egypt alone, guaranteed them their security, the lasting character of their power. The fates of Antigonus, Demetrius, Lysimachus, even of Seleucus and Ptolemaeus the

Thunderbolt are as many examples of the instability of the great powers which were not based on a firm foundation. Philadelphus began to feel this more emphatically after his first reverses, after the loss of Egypt's maritime hegemony. He understood that were it not for Egypt he would lose his power and his life like Antigonus and the others. His main task therefore came to be to work strenuously for consolidating his power in Egypt; and the main question for him was what to do and how to deal with the Greek population of Egypt. Both Soter and Philadelphus understood clearly that it was impossible to base their State on the native population, except as on a toiling mass which worked under compulsion and according to a special schedule. And they were right, as was shown by the attempts made by their successors in this direction. The population of Egypt never forgot that the Greeks and their dynasty were foreigners and intruders. They had no means, except strikes, to combat them, but they would not have tolerated them had they had free hands.

There remained the Greeks, and the main aim of the first Ptolemies was to make the Greeks feel themselves at home in Egypt, to tie them to Egypt with firm bonds. On the other hand, the Ptolemies felt that Greeks concentrated in cities were a constant danger, a constant menace to their power and threatened a complete breakdown of the machinery of their administration. The Ptolemies had first of all to safeguard their own interests,—their interests as the owners of Egypt. There were two sides to this great problem: the need to bind the Alexandrian Greeks to Alexandria, and the Greeks in the country to the country. How this problem was solved is what the correspondence of Zenon partially shows us.

We have seen how Apollonius in Alexandria strove to create the commercial supremacy of Alexandria and of the Alexandrian merchants in the Mediterranean. He is the first of the Alexandrian importers and exporters whom we can observe individually,—one of those merchants who dislodged the Athenians and was successful in competition with the Rhodian and Milesian merchants. We know that these Alexandrian merchants were not satisfied with the Mediterranean only, but followed the tracks of their Egyptian predecessors to the

shores of Arabia, Africa and as far as the harbours of India.[96] It is interesting to see how closely the activity of Apollonius in this field was connected with the activity of the State. The commercial fleet of Apollonius was of course his private capitalistic enterprise, but was it an accident that he was at the same time the dioeketes of Egypt? We do not know what relations existed in this respect between Apollonius and the King. But taking into consideration the fact that aside from his sea-going fleet, Apollonius possessed also a river fleet on the Nile and on the canals, and that here he was bound by close ties to the economy of the State, transporting for the most part goods which belonged to the State, and working as an agent of the State, we may suppose that the same relations existed between him and the State in respect to his sea fleet. At Kerke he had to prepare some equipment for the ships which he was obliged to furnish to carry the King's daughter across the sea: this means that the King regarded his fleet as one which was always at the royal disposal. I think that the relations which existed between the Roman emperors and the Alexandrian merchant fleet were an inheritance from the Ptolemaic epoch. The powerful corporation of the Alexandrian naucleri of the Imperial epoch, the corporation which transported goods belonging to the State from Alexandria to Italy, was the same body whose fleet was greeted by the inhabitants of Puteoli in the times of Cicero, and this again was the same as the merchant fleet which the first Ptolemies used for the exportation of their goods to foreign lands.[97] I can hardly believe that the early Alexandrian naucleri were entirely free to carry out their business as

[96] On the question of the commerce of the Ptolemies with the East and the South, see the excellent book of M. Chwostoff, *Studies in the History of Exchange at the Time of the Hellenistic Monarchies and of the Roman Empire*, Vol. I, *The History of the Oriental Commerce of Greco-Roman Egypt* (Kazan, 1907), in Russian, and my review of this book in *Arch. f. Papyrusf.*, IV, 298 ff. It is a pity that Chwostoff, a victim of Bolshevism in Russia, could not have published the second volume of his *Studies*, which would have dealt with the Western commerce of Egypt.

[97] On the Alexandrian naucleri see Wilcken, *Grundz.*, p. 379; Rostowzew, Pauly-Wissowa-Kroll, R. E., VII, 169; E. Breccia, *Alexandria ad Aegyptum*, Alexandrie, 1918, p. 30; M. Besnier, *Naviculariі*, Daremberg et Saglio, *Dict. des Ant.*, IV, 24; E. Kornemann, P. Giess. 11 and part II, p. 160.

they pleased. They had first to respond to the demands of the State; and in case of emergency the State could no doubt requisition their sea ships as it certainly requisitioned their river barges.

Nevertheless the Ptolemies did not hamper the activity of the Alexandrian and the foreign naucleri to such an extent as to make their business unprofitable. No doubt the Kings had their own merchant ships in Alexandria; but the fact that we hear nothing of these, and that on the contrary the inscriptions occasionally mention the Alexandrian naucleri, those in Delos for example,[98] shows that the foreign trade was carried on not by the State but by private individuals of the type of Apollonius. These men served the State, but they worked for themselves too, and they gradually formed a powerful, rich class which survived the power and the might of the Ptolemies themselves.

It is a pity that the correspondence of Zenon gives us such scanty information on this point. We have seen Apollonius busily exporting and importing goods; we have seen his agents fighting against the custom-duties farmers, and working for their master in Syria, Phoenicia and Palestine; but the main point,—the relationship existing between Apollonius and the King, remains obscure. Let us hope that the still unpublished documents of Zenon's archives will throw more light on this question.

The documents dealing with the gold coinage of Philadelphus lighted up for us one dark corner in the picture of the activities of the foreign merchants in Alexandria. The order promulgated by Ptolemy to transform the gold imported by these merchants into Ptolemaic gold coins, meant that the foreign merchants imported great quantities of it. They probably spent it in buying both from the State and from private individuals, goods produced in Egypt. We may surmise what kinds of goods they bought: grain, linen stuff, papyrus, glass, ivory, perfumes and other products of Egyptian industry.

[98] P. Roussel, *Delos colonie Athénienne* (Paris, 1915), p. 92 ff. The dependence of the Delian on the Alexandrian organization shows that the Alexandrian was organized as a kind of State institution, just as in the Roman period. Cf. above note 94.

Extensive foreign commerce stimulated industrial activity in Alexandria. The ancient, almost perfect industrial technique of Pharaonic Egypt, in the time of the Ptolemies was taken over by Greek artisans; and here, as everywhere else where Greeks came into contact with ancient, high civilizations, they first adopted the native technique, learned every detail hitherto unknown to them, even assimilated some artistic forms and ornamentations, and then transformed the whole in their own spirit, making it accessible and desirable for all who shared the Greek civilization. The markets of the Hellenistic epoch came to be flooded with manufactured articles in this Greco-Egyptian style based on purely Egyptian technique. The Ptolemies of course did all that was possible to increase the industrial activity of Alexandria, but unfortunately we have no evidence in the correspondence of Zenon on the means by which they tried to achieve it. The example of the Memphite factory of Apollonius shows that in Alexandria the factories were probably run on Greek models and that large masses of slaves were employed by the factory owners. But as far as we know Apollonius took no part in the industrial activity of Alexandria, and the point remains therefore as dark as it was before the discovery of Zenon's archives.

The largest part of the new Greek settlers, however, was scattered all over the country. The task of attaching them to the country amounted therefore to the invention of devices for letting the Greek population have their share in the economic exploitation of the land, especially in the exploitation of the natural wealth of the country,—the arable land, the land suitable for vineyards and fruit trees, the pastures, the wealth of fish, game and minerals. The most striking feature of the activity of the Ptolemies was their solution of this problem, and the correspondence of Zenon allows us to look deep into the means by which they achieved the task of making the Greek population serve the interests of the State.

The most numerous part of the Greek element in the country was the Greek or half Greek soldiery of the Ptolemaic army. The army was not permanently occupied in war work. In time of peace it was a crowd of lazy men who might become dangerous to the power of the Ptolemies. To release them after

each war and to assemble them again before another war was of course not only unwise but almost impossible, since the markets for mercenaries were situated in countries hostile to the Ptolemies. It is well known that this dilemma was solved by the Ptolemies and the other Hellenistic rulers by settling the soldiers in the country, giving them parcels of land to work. I cannot speak here of the military side of this phenomenon. I am interested in the social and economic aspect only. Here we meet scores of unsolved problems, the most important of which is whether the soldiers received the land as substitutes for salaries or whether they were intended to become gradually a part of the agricultural population of the country.

This point is hotly debated. Lesquier in his well known book on the military institutions of the Ptolemies and I in my book on the Colonate, have tried to show that in the second century at least, the economic side of the problem was seriously taken up by the Ptolemies; that they used their army to recover for agriculture those fields which in one way or another had become unproductive, but naturally were not unfit for agriculture.[99] Gelzer, in his last treatment of the problem, has made an attempt to show that in the early Ptolemaic time the system of the Ptolemies was different.[100] They gave the soldiers not parcels of unproductive land, but good arable land already worked by the peasants and remaining even after it was given to the soldiers in the peasants' hands, provided the peasants became farmers not only of the State but of the State and of the cleruchi. The clerus was thus a substitute for the salary, a kind of payment of the salary at the expense of the crown peasants. Lesquier combatted this hypothesis and showed that the Papyrus Freiburg 7, on which the theory of Gelzer was based, does not give the evidence necessary for the solution of the problem in the way in which this was done by Gelzer.[101]

[99] Lesquier, *Les institutions militaires de l'Egypte sous les Lagides*, (Paris, 1911), p. 202 ff.; Rostowzew, *Studien*, p. 7 ff.

[100] M. Gelzer, P. Freiburg 7 (*Sitzungsber. der Heidelberger Akad.*, 1914, 2).

[101] Lesquier, "Le papyrus 7 de Fribourg," *Rev. d. études gr.*, XXXII (1921) 359 ff., cf. P. Meyer, *Juristische Papyri*, p. 186 ff.

The correspondence of Zenon shows that the whole problem as formulated by the two scholars quoted above does not exist. They are both right and wrong. We have seen from the examples of Apollonius' δωρεά and its settlement that the problem which faced Philadelphus in the Arsinoite nome, and *mutatis mutandis* in the other nomes, was as follows. Extensive irrigation work carried out by the engineers of Philadelphus reclaimed scores of thousands of acres of arable land fit for agriculture. As soon as this land was restored to condition allowing agricultural exploitation, it must be worked at once. This could not be done by the cleruchi who had no cattle, no implements, no training, and who might unexpectedly be called for military duty; moreover, the work of assigning them their cleri was a gradual slow process. The occupation of this land at once could only be accomplished by attracting to it a population of crown peasants. Thus the Arsinoite was settled by emigrants from overpopulated nomes of Egypt, especially from the Delta,—the richest agricultural part of Egypt. This emigration may have been sometimes voluntary, sometimes compulsory. I have shown in my second chapter that most of the geographical names and most of the religious cults of the Arsinoite reflect this process of settling the nome by peasants transported from different places in the Delta and in Middle Egypt and given new homes and new fields. The emigration agents, so to say, who had charge of the land and the new settlements, were the nomarchs, responsible for the cultivation of the new lands. As soon as the land became cultivable it was registered as such; a certain assessment of rent to be paid for it was made; and the land was then handed over to the nomarchs who were held responsible for its being cultivated in fact and not in theory only.

Thus land which was cultivable and was not cultivated did not exist in the bureaucratic theory of the Egyptian administration and most of the cultivable land was as a matter of fact cultivated by the peasants. Land not cultivated was either land which was not fit for being sown with cereals, or land on which the irrigation work was not yet completed. Grants made up of such land alone could not of course be given to the soldiers.

Gradually, nevertheless, one parcel after another of the newly reclaimed land was assigned to the cleruchi, but of course land assigned to the cleruchi was taken from the arable land which was already cultivated by the crown peasants. There was no reason whatever for the cleruchi to turn out the peasants and to begin to work for themselves, nor was there any reason for the State to allow it. But I doubt very much whether all the land received by the cleruchi was cultivated by crown peasants. If it were, how can we explain the enormous increase in orchards, olive groves and especially vineyards on the cleri of the military landholders? How can we explain that they had to pay for the supplementary irrigation work done on their plots? These facts can be explained only by the supposition that the clerus of a military settler consisted partly of arable and cultivated land, partly of land which was not good for agriculture but by means of some irrigation work could be transformed into excellent soil for planting vineyards, orchards, some kinds of vegetables. The history of the clerus of Apollonius shows this, with ample evidence. One part of his land was arable when he received his grant; it was plowed and sown by crown peasants under the supervision of the nomarchs; the crown peasants became then farmers of Apollonius. But another part, and a very large one, was not yet cultivated. Supplementary irrigation work on this part was done by Apollonius; a large part of this land was then planted with vineyards and orchards; some plots were given to individual farmers with the obligation of carrying out irrigation work. *Mutatis mutandis*, as our evidence clearly shows, this history was the history of almost every one of the military cleri.

Of course some of the soldiers had neither time nor money nor interest for the improvement of the land which they received. These men of course received the ἐκφόριον (rent) from the crown peasants and did not care very much for their land. But such men seem to have been rather exceptions. Most of the soldiers were glad to receive parcels of land. Let us not forget that the majority of them were peasants driven from their own countries by poverty and debt or attracted by the hope of a better life. Let us not forget also that the thriftiest of them saved some money during their military service. No

wonder if their first thought after receiving the land was to invest their money in this land, to build a house, to plant a garden and a vineyard, to raise some cattle. They might afterwards be called up for military service but their wives and children would remain to work the land, and they could always rent their vineyards if necessary.

Certainly the plots of land given to the cleruchi were in the nature of substitutes for salaries. But at the same time they were a kind of school, a kind of test for selecting from the army those who were willing and fit to become good farmers and to create an independent husbandry. Their interest was to manage their land properly, lest they might lose it, as the State insisted upon proper cultivation for regular payment of the taxes. I have said already that the land planted with vineyards, the house and the garden became the private hereditary property of the cleruchi, and could not be taken away even after the death of the cleruchus who first received the plot.

The evolution of the land tenure of the cleruchi is well known, but I would like to emphasize the fact that in the history of the transformation of the cleri into private hereditary property economic considerations played an important part. Good husbandmen, good vinedressers and gardeners ought not to be deprived of their resources in order to give the land to a vagabond soldier. But on the other hand the transformation of many cleri into private property made it impossible to find lands for the new soldiers other than those lands, which for one reason or another in the troubled years of the second century B. C. had become only partially productive or even altogether unproductive. This is the reason why in the second century unproductive land, almost exclusively, was assigned to the military settlers. There was no other land available. But the object of the assignments remained the same: to give a substitute for salary to a soldier and to give him a chance to settle down on the land, to raise a family and to create a new and prosperous home.

The cleruchi and the officials who were treated in respect to land assignments in the same way as the cleruchi, formed a large and comparatively wealthy population in many agricultural districts of Egypt. Along with them there had come to

Egypt many others of lower rank in search of a better life than that which was the lot of the majority of the citizens of the Greek cities of the mainland and of certain colonies. All the herdsmen, vinedressers, weavers, horse-breeders, and so on, whom we met in the correspondence of Zenon and who worked on the estate of Apollonius, were of this class; by no means all of them were then soldiers, or had ever been soldiers. The number of these non-military settlers can scarcely be exaggerated. They poured into the land as long as the conditions were favourable.

Egyptian economic life was opened to them by the Ptolemies through the system of State farming and State concessions. We have seen how logically this system was developed by the Ptolemies.[102] At the time of Philadelphus almost no branch of economic life was closed to these revenue farmers and concessionnaires. Into the domain of agriculture they penetrated as farmers of the rent of the crown peasants, who worked as farmers of great landowners. They found their way into most other branches of the economic life and played a prominent part in all.

The system as such was modified according to the conditions of the different branches of trade. But the main lines remain everywhere the same and were formulated in general laws on revenue farming. The public works were given to those contractors who undertook them on conditions most favourable to the State. The big contractors let parts of this work to subcontractors, and so on. Almost every branch of productive activity of the population was organized as a state concession, an *ὠνή* and was managed by special contractors working hand in glove with the officials. It was their privilege to collect for the State the rent paid by the industrial population, most of whom were concessionnaires of the State also, as far as they received special licenses for working in one trade or another under the obligation of giving a part of the product of their work to the State. This industrial population was called *ὑποτελεῖς* or *ἐμπεπλεγμένοι ταῖς προσόδοις*, and generally speaking the revenue

[102] See Rostowzew, *Geschichte der Staatspacht*. I maintain fully the main ideas of this book of mine although many parts of it are already antiquated and should be rewritten in the light of the new evidence.

farmers formed a part of this class. They might be vine-dressers, or beekeepers, or shepherds, or weavers or brewers: each of them had to share his produce with the State. The vinedresser must secure a special license for planting his land with vines, under the obligation of the payment of one-third of the produce to the State and one-sixth to one-tenth to the deified Queen Arsinoe; the beekeeper gave up one part of his honey; the herdsmen gave a number of the young animals and a tax in money for the wool produced by the animals, for their milk, for their work, paying moreover a special tax for using the State pasture land; the weavers worked for the State, giving up the whole of their produce in return for fixed remuneration for their work; the same conditions apply to the workers in the oil factories, et cetera. Some of these concessions required capital, some special skill, some needed mere muscular strength only, but all were regarded as special concessions, and the concessionnaires were obliged to give a part of their money, their skill or their muscular strength to the State for permission to perform their work. The lower class of these concessionnaires, like the workmen in the oil factories, were of course natives, but most of the higher classes, especially in the branches of trade recently introduced into Egypt by the Ptolemies, were Greeks.

But this is not yet the end of the system of State concessions. The produce received by the State must be transformed into money. It was always easier to exact the rent from the concessionnaires in kind than in money, as money was scarce in Egypt. For this purpose there was created the system of general revenue farming which transformed the produce into money and gave the money to the State. But even these big contractors were not rich enough to handle the whole business alone. Thus an ingenious system of special concessions for selling the goods of the State was invented and put into operation. The right to sell a special kind of product, say oil, wine, salt, cheese, bread, meat, salted meat and fish, beer, even boiled lentils and roasted pumpkins, was given to special concessionnaires, who had the exclusive right to sell these products to the population of a certain district. They bought these products partly from the revenue farmers, partly from the population, and sold

them to customers, retaining for themselves only a part of the profit. As these men had the monopoly of selling special products, and nobody was allowed to do it in competition with them, so naturally they were the only buyers of most of the products of agriculture, of cattle breeding, of gardening, et cetera, outside of the great merchants of Alexandria. Complete free trade I affirm, did not exist in any branch of the economic activity of the subjects of the Ptolemies.

There were therefore many opportunities for a shrewd Greek business man to invest a little money and great cleverness, thereby realizing a handsome profit. Of course the activity of the concessionnaires was hampered by the strict control of the State officials. But bureaucracies are all alike: one may find many loopholes through which to creep.

Such was the position of the Greek population in Egypt,—a position consciously created by the Ptolemies. What was the significance in this system of the custom of granting large plots of land with certain rights over the population to great personages like Apollonius? This custom fits perfectly into the whole system. But let me first summarize the results of our investigation as regards the δωρεαί. The δωρεὰ was a combination of a grant of an exceptionally large plot of land,—a large clerus, and of certain rights over the population and land of one or more villages. The relations of the holder of the δωρεά to his clerus were not different from those of any one of the soldiers to his clerus. He could use it as he pleased, provided the rights of the State on this territory were guaranteed, that is provided the revenues of the State from this territory were paid to the treasury. He was free to plant the land with vineyards and trees, provided he paid the duties to the State. He improved the land by constructing new dykes and canals but nevertheless this land also paid taxes to the State. The surplus, after the duties to the State were paid, was divided between the holder of the land and his farmers, be they crown peasants, individual farmers, or contractors who undertook a special work for remuneration in money or in kind.

More complicated were the relations of the holder of the δωρεὰ to the villages given to him as a "gift" by the King. In respect to these villages and their population the land-

holder represented the State as far as the local administration was concerned. He himself is the local administration, holding in his own hands the duties and rights of the komarch and village secretary, perhaps the toparch and the secretary of the toparchy. Like them, he has only administrative, not judicial rights, and he has of course more obligations than rights. Briefly, he is responsible to the State for the population in respect to their payments, to the preservation of order by them, and in respect to their compulsory labour.

Concerning the payment of different taxes and rents, he seems to hold the post of a general farmer of all the revenues which are due to the State from the different classes of the population. Perhaps he even possessed the rights of a general revenue farmer with certain rights and duties of the oeconome, if it was he who gave out the different branches of trade in the village to the concessionnaires. He was probably also the owner of most of the public village buildings: markets, baths, beershops, et cetera. His position is comparable to that of Ptolemy, the son of Lysimachus, at Telmessus, and to that of Josephus in Palestine as depicted by Flavius Josephus.

What is the historical origin of the δωρεαί? They have nothing to do with the estates of the feudal lords in Egypt in the Eleventh and following Dynasties. I see scarcely any connection between them and the exceptional position occupied by the temples in Egypt of the Pharaohs and of the pre-Greek foreign domination. More similar are the grants given by the Persian Kings to their high officials, like the famous grants to Themistocles in Asia Minor. But we know practically nothing about these grants, although we may suppose that they were also introduced into Egypt by the Persian Kings.

Be that as it may, the δωρεαί of Ptolemy Philadelphus form one of the links in his general economic system and are an important element in his treatment of the Greek population. Of course one of the main aims of Philadelphus in granting land to his companions, his generals and ministers, was to remunerate them for their services, to give them a kind of salary. But at the same time, as appears from a close study of the correspondence of Zenon, in giving land to Apollonius and to others like him, Philadelphus intended to make as easy

and as speedy as possible the great work of economic development, of introducing new methods in agriculture and industry, by attracting as many Greeks as possible without creating Greek cities. His companions were at once faithful servants of the King with great power in the country, and shrewd business men who succeeded in making large fortunes. They were precisely the proper persons to direct the reclamation and cultivation of new lands, to create new villages and cities, to introduce new crops and new scientific methods in the technique of agriculture; and last but not least, to help the King not only in placing new tracts of land under cultivation, but also in planting them with the most suitable crops. In giving such men administrative power over the population, the Ptolemies intended to put at their disposal large numbers of men for use in their great operations, and to give them a free hand to attract new settlers. Finally, the rôle which they were called upon to play as supervisors and general farmers of the revenues of the State, was intended to enable them to create in their villages new sources of income; to introduce one after another new branches of industry and trade; in one word, to develop to the utmost the economic life of the village. It is not surprising that after the experience which they had gained in their δωρεαί, they tried even against the law, to extend their tax-farming operations by acting as farmers of certain revenues for the whole nome and even for many nomes.

If I look elsewhere for a similar organization of lands granted to influential officials, I see only one. I do not mean the feudal seigneurs of the Middle Ages; their position was entirely different and had quite dfferent historical roots. I have in mind the landholders in Russia, especially in the sixteenth and seventeenth centuries, before the time when they received their lands and men in full title from the hands of the Tzars. Like the owners of the Egyptian δωρεαί, they were temporary holders of their lands, as long as they served the State; the land remained the property of the Tzar. Like the Egyptian landholders, they had administrative power over the population and were responsible for the obligations of their people towards the State. And we find the same reason for creating such a special class of landowners: to satisfy both the political and economic interests of the Tzars.

Thus the δωρεαί were a kind of economic superstructure over certain parts of Egypt, intended mostly to stimulate life in these districts. As such the institution was necessarily temporary, transitional. It is therefore not an accident that our evidence on the δωρεαί is confined to the short period of the reigns of Philadelphus and Euergetes. After all the available land was put under cultivation, there was no longer need for such big concessionnaires as Apollonius and others like him. The striking economic feature of the period after Euergetes in Egypt, was not an increase in the amount of cultivable and cultivated land but a gradual decrease. Land which was fertile became dry or marshy again, and the efforts of the State were directed towards reclaiming these lands again. Under such conditions men who were willing to do the work wanted more than a precarious title to their land: they asked for the right to dispose of their land as they pleased. This is the reason why in the second century B.C. the institution of the δωρεαί died out, and instead, large and small private estates were granted to the officials and soldiers, sometimes even against their wills. The only survivals of the δωρεαί were probably the appanages of the members of the royal family.

What did happen to the δωρεαί after they were taken away from their holders we do not know. There was probably no general rule. If there was no confiscation, the family of the holder probably retained the vineyards and the gardens, the houses and other buildings in the villages, but the clerus was taken over by the State. In such cases as that of Chrysermus, the heirs might have retained even the whole clerus. But these are mere conjectures.

A temporary revival of the δωρεαί is to be found in the δωρεαί of Roman imperial times, grants which some leading persons in Rome received from the heirs of the Ptolemies, the Roman Emperors. But the organization of the οὐσίαι as far as we know was slightly different.[103] The grants have no military character; the οὐσίαι were not cleri. It is a superimposition of large landholders over the real tillers of the soil, and that is all. The οὐσίαι were not so many solid plots of land, but each consisted

[103] On the οὐσίαι see Rostowzew, *Studien*, p. 119 ff. New material for the history of the οὐσίαι is supplied by some Ryland and Hamburg Papyri.

of land scattered all over the nome of the Arsinoite, several parcels in different villages forming one *οὐσία*. It may have been that Augustus and his successors wanted to induce some millionnaires of Rome to invest their capital in improving the agricultural conditions in Egypt, but I doubt very much whether this attempt of the emperors was successful.

APPENDIX I

THE OFFICIALS OF THE ARSINOITE NOME MENTIONED IN THE CORRESPONDENCE OF ZENON

Many times in the correspondence of Zenon we have met with names and titles of officials with whom Zenon and Panakestor before him were in constant relations, receiving letters from them and addressing letters to them. What kind of officials they were and what relations existed between them and the administration of the δωρεά of Apollonius is a matter of importance and interest. The investigation of this question is both difficult and complicated as in the Ptolemaic period in general not much attention was paid to titles; accordingly, the titles of the persons mentioned in the letters of this period, except in contracts and other documents of the same nature, are seldom given in full. The letters, the most instructive and most numerous documents, very rarely mention the title even in abbreviation.

I have spoken already about *Apollonius* the dioeketes. By his side in the correspondence of Zenon often appear his two assistants, the sub-dioeketae (ὑποδιοικηταί),—*Nicanor* and *Diotimus*. The question of the existence of such ὑποδιοικηταὶ at all has been hotly debated (see Druffel, *Arch.*, VI, p. 30 ff.). The correspondence of Zenon decides definitely that such officials existed (Vitelli, P.S.I. 415, note 1). The title of ὑποδιοικητὴς is repeatedly given to Nicanor and Diotimus in the archives of Zenon and they are mentioned many times in the documents of Zenon's archives and in other contemporary papyri without titles. Nicanor is mentioned twice in P.S.I. 415 and 632, 11; the title of ὑποδιοικητὴς is given to him in the latter of these two papyri. Diotimus is mentioned many times, once with the title διοικητὴς (P. Z. 38), and once in a fragment quoted by Edgar P. Z. 37, Intro. with that of ὑποδιοικητής. The same Diotimus is mentioned in P.S.I. 361; 409 a (?); 425; 566; 587; 591; P. Z. 37; and in other papyri: P. Freiburg 7; P. Petrie II, 4, 2—III, 42 (c), 4; II, 13, 17—III, 42 (d), 3; II, 9, 1—III, 43, 8; II, 13, 1—III, 42 (c), 12; cf. Lesquier, *Rev. d. études*

gr., XXXII, 363 ff. The frequency of references to Diotimus in the Arsinoite documents during a comparatively short period, from the year 30 to the year 35 of Philadelphus, and the paucity of the references to Nicanor, show that the Arsinoite belonged to the part of Egypt which was under the special care of Diotimus. On the other hand the variety of affairs in which Diotimus was involved proves that there was no division of business between him and Apollonius, no special domain in which he alone was competent to act, but a general commission was given to him for a group of nomes. Another peculiarity is the fact that, as an assistant of Apollonius, he was engaged not only in affairs of State but in the private affairs of Apollonius as well; in this respect he was the direct superior of Zenon. We shall come back to this topic in Appendix III. It may be that Diotimus was competent for at least the Arsinoite, Memphite and Aphroditopolite nomes (see especially P. Z. 38 and P.S.I. 566; Edgar, P. Z. 37, Intro.), and that Nicanor was connected with the Herakleopolite (P.S.I. 632).

The next series of officials who were in close touch with Zenon and the estate of Apollonius were the oeconomes. There is no exhaustive treatise on the duties of the oeconomes.[104] We know now that there were several oeconomes in one nome, the chief residing in the capital of the nome. We know also that the division of the oeconomes into two classes, of which one dealt with payments due to the State in money, the other with payments in kind, was introduced in the late Ptolemaic epoch. On the duties of the oeconomes we have plenty of evidence. I cannot treat this matter here and can only refer to my investigations in my forthcoming comments on P. Tebt. 703. Briefly, the oeconome was the local dioeketes of one nome or of one part of the nome. He was the manager of the economic life of the nome so far as the State was interested. Thus everything which was connected with agriculture, cattle breeding, pasture land, industry, trade and transport, so far as these

[104] See A. Steiner, *Der Fiskus der Ptolemaeer* (Leipzig, 1914), p. 10 ff., and the list of the oeconomes mentioned in the papyri p. 57 ff. Steiners' treatment of the subject is both misleading and incomplete. He has no understanding whatever of the historical evolution. Cf. E. Preisigke, *Fachwörter, sub verbo.*

branches were under the control of the State, was his main business; and he was especially concerned with the various classes of contractors and concessionnaires who were the main moving force in the economic life of Egypt. His chief duty was to secure these contractors, to sell them the different ὠναί or branches of revenues, to supervise them and to make monthly and final accounts with them. Such was also the activity of the oeconomes in Philadelphia.

The question as to who were the oeconomes during Zenon's stay at Philadelphia is not an easy one to answer. As the oeconomes were numerous in the Arsinoite, and as the managers of the estate had to deal both with the central and the local oeconomes, it is not easy to decide which of the officials, to whom the title of οἰκονόμος was given, were local and which were central financial governors of the nome. Besides, there are some men in the papyri who apparently performed functions identical with those of the oeconomes but who are mentioned in the documents without any title.

The earliest oeconome mentioned in the correspondence of Panakestor and Zenon is *Zoilus*. He is mentioned many times in the letters of the years 29 and 30 (P.S.I. 498, 502, 509; P. Z. 18, 20; P. Lond. Inv. 2096, 1). He seems to have been the central oeconome of the whole nome although this is not quite certain. In the letters he appears now as the official concerned with the compulsory labour, now as the manager of the different ὠναί, always taking part in questions dealing with agriculture on the estate. After the year 30 he disappears from the documents of the archives of Zenon. In the many letters of the years 30 and following, we meet with several persons who bear the title of oeconome. Some of them are also known from Petrie and other contemporaneous papyri. In the papyri Petrie there is a man, *Dionysius* by name, who is mentioned several times in connection with the activity of Kleon, the chief engineer, as being the oeconome (P. Petrie II, 14, 4; 13, 6, etc.). He appears again in one Hibeh Papyrus (P. Hib. 110, l. 87) and in one of the Zenon papyri (P. Lond. Inv. 1994, year 38). Two Petrie papyri of the same years (II, 12, 4; cf. 13, 16) name a certain *Philippus* ὁ ἐν Πτολεμαΐδι οἰκονόμος, and in the year 33 another Petrie papyrus, III, 42,

F(a), gives the title of oeconome to *Aristophanes*.[105] Aristophanes may have been the local oeconome of some part of the nome which was not in touch with the estate of Apollonius, but Dionysius seems occasionally to have had relations with Zenon and Apollonius; the name of Philippus has not yet been mentioned in the published Zenon papyri. We have also many references to a man named *Hermolaus*, who sometimes bears the title of oeconome and fulfills exactly the same functions which are characteristic of the activity of Zoilus and of the oeconomes in general (see P.S.I. 353, 354, 356, 358, 372, 382, 425, 544; P. Z. 38; P. Lond. Inv. 2079; all from the year 32 to the year 38). But at this same time, in the years 33 and 34, we have frequent references to a man named *Philiscus* who fulfills these same functions, although the title *οἰκονόμος* is never given to him (P.S.I. 359, 402, 419, 513, 591; P. Z. 41; P. Petrie II, 13, 13, and P. Hal. 15, 8). In one of these documents he takes part in assigning land to the cleruchi (P.S.I. 513); in another (P. Z. 41) he informs Zenon that by order of the King he must meet a distinguished visitor to the nome,—Ariston, probably the same explorer who was sent out by Philadelphus to investigate conditions in Arabia (Diod. III, 42); and he says that he intends afterwards to come to Arsinoe to take part in a public auction.

One may conclude from these facts that Zoilus, if he was the chief oeconome, was followed by Philippus for a short time, as in P. Petrie II, 13, 16, Philippus seems to be the superior of Dionysius; afterwards came Philiscus. Dionysius was probably a local oeconome and Hermolaus was certainly the oeconome

[105] Cf. also P. Lille 9, time of Philadelphus,—a petition from a retail trader in oil in the village Κάμινοι to *Asclepiades*, the oeconome. An oeconome *Aristandrus* who is many times mentioned in the correspondence of Zenon (P.S.I. 361, year 35; 383, year 38; P. Lond. Inv. 2097, year 39, cf. P.S.I. 544) was probably the oeconome of the Aphroditopolites. He appears in Zenon's documents exclusively in connection with Zenon's farm of the wine revenues, which was not confined to the Arsinoite nome (P.S.I. 544); the only exception is P. Lond. Inv. 2097, l. 16. But we do not know where the *νομαὶ* of the *ὑικὰ ἱερεῖα*, of which Jason writes to Zenon, were situated. We must not forget that the territory of Hephaestias bordered on the territory of the Aphroditopolite nome.

not of the Arsinoite, but of the Memphite nome.[106] However, these suggestions are liable to change according to new data which certainly will enlarge our knowledge of the prosopography of the officials of the Arsinoite nome.

None of the officials of the nome had such constantly close relations with Panakestor and Zenon as the nomarchi. We know three who frequently appear in the documents of Zenon's archives and are also known from other papyri. First appear *Damis* and *Etearchus*, two brothers with whom a third brother, Sostratus, is associated without being a nomarch himself. From the beginnings of the estate, Damis is especially active in the conduct of affairs (P.S.I. 500, year 29; 502, year 29; 508, year 30; 587; P. Z. 35, year 32; P. Lond. Inv. 2090, 3; 2096, 3). In the year 36 he has the title ὁ παρὰ Θεμίστου (P.S.I. 366 and 367),[107] but he is still nomarch, as is shown by P.S.I.

[106] We have some documents which point at the connection of Hermolaus with the Memphite rather than with the Arsinoite nome. In P.S.I. 425, two nomes, the Memphite and the Aphroditopolite, are mentioned, and two oeconomes,—Hermolaus and Aristandrus; as also in P.S.I. 544; both papyri deal with distribution of wine among the retail traders. Moreover in P.S.I. 354, which deals with a journey of the King, and with some hay to be saved from requisition at Moithymis in the Memphite nome, the name of Hermolaus is mentioned; in P.S.I. 372, Hermolaus appears as taxing a retail oil trader of Sophthis,— again in the Memphite nome; in the receipts for sesame, P.S.I. 358 and P. Lond. Inv. 2079, the agent of Hermolaus speaks of the agent of Zenon as being ἐκ Φιλαδελφείας; finally, in P.S.I. 382, Hermolaus is connected with Kerke, of which the exact situation is unknown but which may have been a landing place not in the Arsinoite but in the Memphite. But in P. Z. 38, Hermolaus is acting in an affair connected with the Aphroditopolite. It may be that Hermolaus in the year 32-33 temporarily dealt also with the affairs of the Aphroditopolite, as the former oeconome of this nome, *Theokles*, had just resigned and the new official, Aristandrus, was not yet appointed; he is first mentioned in the year 35. I am therefore almost certain that Hermolaus was the chief oeconome of the Memphite, and that his connection with Zenon must be explained by the fact that the δωρεὰ of Apollonius in this nome was under the general management of Zenon; Moithymis and Sophthis were the two villages situated within the limits of the δωρεὰ, and Kerke was the landing place both for the Memphite and the Arsinoite δωρεαὶ of Apollonius.

[107] *Themistus* may have been another holder of a large δωρεὰ; he is identical with the eponyme of the Θεμίστου μερίς. Damis was his agent as he was an agent of Apollonius (P.S.I. 500); i.e., the State official in charge of the large δωρεὰ granted to this important member of the court of Philadelphus.

518 where the nomarchy of Philadelphia is called Δάμιδος καὶ Ἐτεάρχου νομαρχία. The same two nomarchs appear also in P. Lille 2 and in P. Petrie II, 13, 16. In the last of these papyri, along with Damis, we have another nomarch named *Maimachus*. This Maimachus is mentioned perhaps more frequently than Damis and Etearchus in the documents of the years 33 and later (P. Z. 40, year 33; P.S.I. 513, year 34; 361, year 35; P. Petrie II, 26, 1 and 2—III, 64 (a), documents dated in the year 35, and in the year 8 of Euergetes; II, 39 (h)—III, 49; II, 13, 16—III, 44, 1; II, 39 (a)—III, 88; II, 23, 2—III, 33, all undated; P. Hal. 12; P. Lille 5). This chronological and territorial overlapping of the nomarchi is awkward. We may suppose that Maimachus became associated with the brothers Damis and Etearchus, but his nomarchy bears his name just as the nomarchy of Damis and Etearchus bore their names. Another solution of the problem would be that Maimachus was the nomarch of the neighboring nomarchy, to which belonged a part of the estate of Apollonius; but in the year 33 (P. Z. 40) Maimachus acts in the affairs of some peasants of the estate in the same fashion as Damis does in P. Z. 35, year 32. I see no solution of this problem as yet.

The question of the functions of the nomarchi has never been fully investigated. The frequent references to them in the R. L. gave the opportunity to Grenfell to deal briefly with them (R. L., p. 133), and he came back to the same topic in P. Tebt. I, 213. Wilcken devoted a few lines to them (*Grundz.*, p. 10), and after him so did Martin (*Les épistratèges*, p. 141), although Martin dealt almost exclusively with the Roman period. And yet for none of the officials of the early Ptolemaic time have we such full evidence as for the nomarchi. Let me therefore deal with them a little more at length.

In his investigation of the historical geography and topography of the Fayum in P. Tebt. II, Grenfell pointed out that the Arsinoite nome was divided from the early Ptolemaic epoch into districts which do not coincide with the well known merides of the nome, those of Polemon, Herakleides and Themistus; but like the merides, these regions are designated by the names of their chiefs,—the nomarchi. These sections were in their turn subdivided into merides, not to speak of the

well known subdivision into toparchies and villages. We do not know what the boundaries of the different nomarchies were, except that they probably did not coincide with the boundaries of the merides; this of course is not quite certain.

Within the limits of their nomarchies the nomarchi dealt exclusively with the agricultural life of their territory. The farming of the revenues forms a part of their duties as far as these revenues were derived from the direct exploitation of the land. For example, they play an important part in the farming of the oil and wine revenues (see the R. L.), and in the farming of the revenues derived from the pasture land, be it the tax of the *ἐννόμιον* or the farming of fisheries and hunting.

But their main domain is agriculture,—the land both arable and pasture. The nomarchi are in constant relations with the engineers who build the dykes and canals. In the contracts of Kleon (P. Petrie III, 42, F) they are members of the commission which gives out the work on the dykes and canals to contractors. In the contracts of Theodorus, the successor of Kleon, although they no longer take any part in the activity of the commission mentioned above, they often appear at the end of the contract, sometimes as the contractors themselves.[108] I find no other way of explaining this fact than to suppose that in case of necessity, in case of lack of contractors, the nomarchi *ex officio* took over the work instead of contractors, and used, of course, compulsory labour. The frequency of such cases in the papyri mentioned above proves that it was not an easy task to find contractors in Egypt under the conditions which were prescribed by the law. It is also in the rôle of contractors that the nomarchi act when it is necessary to deliver great quantities of fascines of brushwood and reeds for the dykes, bridges and sluices.[109] This I explain by assuming that the brushwood and reeds taken from the marshy land (*ξυλοκοπία* and *θρυοκοπία*) after this land was drained, remained at the disposition of the State and were disposed of

[108] P. Petrie III, 43, 2, col. I, l. 29, 30; col. III, l. 10; col. IV at the bottom; *verso*, col. IV, l. 6 ff. Highly important is P. Petrie III, 37 (a); cf. P. Hal. 12.

[109] P. Petrie II, 37-III, 44, 2-4, see especially *verso*, col. III; cf. III, 41 and 46, 1; II, 13, 20; II, 26, 1 and 2-III, 64 (a).

by the nomarchi who controlled the works called ξυλοκοπία and θρυοκοπία. The fact that the nomarchi acted as contractors shows that they disposed of unlimited quantities of men (σώματα) working under compulsion but for a remuneration. It is proved by P. Petrie II, 9, 1, where the engineer Theodorus asks the sub-dioeketes Diotimus to give an order to the nomarchi to send all their men for hasty work on the dykes. We see therefore that in respect to the engineering work done in the nome the nomarchi took an active part in their capacity as officials who disposed of the manual labour of the population, especially that of the crown peasants, and at the same time in their capacity as the officials who managed the whole of the unproductive land of their section. In this last capacity, for instance, they disposed of the pasture land by giving it out to herdsmen (P.S.I. 367 and 361).

When the engineering work had transformed the marshy or sandy land into land virtually arable, the nomarchi had to take care that this land should be plowed and sown and should yield a revenue to the State. As the chiefs of the crown peasants of their district and, so to say, as agents of immigration, the nomarchi dealt both with the existing groups of crown peasants and with new groups to be settled on the new lands. We have seen that many new settlements in the Fayum received their names from individuals with Greek names; this is especially true of small settlements like the ἐποίκια,—hamlets.[110] These names were probably the names of the men who owned and settled these places. The fact that the sections administered by the nomarchi bear their names testifies therefore that they were the settlers of these districts. I have no doubt that the original three sections,—merides, of the Fayum, which received the names of Polemon, Herakleides and Themistus, preserve in these names the record of their being settled by men bearing these names, probably the first nomarchi of the Fayum.

As managers of the new lands the nomarchi entered into agreements with the crown peasants on the conditions of work on the new lands and of the payments to the treasury. They supervised the work of these peasants, tried to settle misunder-

[110] See the list of Grenfell, P. Tebt. II and above p. 9.

standings, disturbances and strikes, and had even a certain power of ousting the peasants from their refuges in the temples and sacred precincts (P.S.I. 490, 502, 536; P. Z. 34, 35, 40; P. Lond. Inv. 2090, 2096).

In the same capacity as managers of the productive and unproductive land, the nomarchi took also an active part in the assignment of the new lands to the military holders of these lands and to the holders of the δωρεαί, and after the land had been assigned they took care that land properly prepared for cultivation was plowed and sown (P.S.I. 500). For this purpose they again used the masses of the crown peasants, acting as intermediaries between them and the new holders of the land. We must not forget that the land given to the cleruchi and to the holders of the δωρεαὶ remained the property of the King, changing its status only temporarily. It is not surprising that the nomarchi cared also for the lands which came back into the hands of the State (P.S.I. 536).

As the managers of the land the nomarchi naturally took charge of a rational distribution of the crops, according to the needs of the State. The famous P. Petrie III, 75 (cf. II, 23, 2–III, 33), which contains a report on the distribution of crops on a territory of 180,000 arurae in the year 12 of Euergetes, was probably compiled by the nomarch for the use of the oeconome on the basis of the reports of his assistants, the toparchi, who in their turn certainly drew their information from the reports of the komarchi and the village scribes. P. Petrie III, 75 has been regarded generally[111] as a report dealing with the whole amount of the sown land of the nome. This of course is impossible. 180,000 arurae do not represent

[111] Even by myself in Pauly-Wissowa-Kroll, R. E., *Frumentum;* cf. P. Meyer, P. Hamb. 24, Intro. This conception of the document is based on the introductory formula: παρ' Ἀμμων[ίου] νομάρχου τοῦ Ἀρσινοίτου τῆς/ κατεσπαρμένης γῆς εἰς τὸ ἴγ ἔτος/ ἕως Ἀθὺρ λ, καθότι ἐπέδωκαν οἱ τ[ό]παρχοι./ ἐν τῶι Ἀρσινοίτηι, follows the list. But this heading, as I see now, does not mean that the crops of the whole of the Arsinoite nome were enumerated but that in this list that portion only of the nomarchy was taken into consideration which formed a part of the Arsinoite nome. It is probable therefore that the area of a nomarchy may have included lands situated in different nomes, and therefore a nomarchy was not a subdivision of a nome but was a special division for special purposes of an economic nature.

the area of the sown land of the Arsinoite. The fact that the report was compiled by a nomarch shows that it deals with the arable land of one nomarchy only, perhaps with the arable land of one of the three merides. Our papyrus enables us therefore for the first time to judge the size of a nomarchy.

Finally, in the same capacity as managers of agriculture, the nomarchi were closely connected with the payments of the rent of this land to the State, whether land sown with cereals or oil plants, or land planted with vines or trees, or land used as pastures.

To the question of the origin of the nomarchi I cannot give any definite answer. There are two opinions on this subject. Wilcken (*Grundz.*, p. 10) links the nomarchi of the Ptolemies with the nomarchi of Alexander who were probably governors of the nomes. Grenfell on the other hand (see above p. 152), disconnects both and explains the title nomarch as a new formation derived from *νέμω*, i. e., to distribute, the nomarchi being, so to say, chiefs of the distribution of land and crops. Against Wilcken is the fact that in the Fayum the nomarchi never had to do with the whole of the nome, but from the first only with sections of the nome. Against Grenfell is the indefiniteness of the name and its separation from the similar terms *τοπάρχαι* and *κωμάρχαι*. I should propose therefore the solution that *νομός*, a section, in this case means not a district of Egypt as a whole but a district of the region called *Λίμνη*,—lake. For distinguishing between the two, the name used for these last districts was not *νομὸς* but *νομαρχία*, like *τοπαρχία* which is equivalent with *τόποι*, places. The first sections of the Lake district were called merides and their chiefs perhaps *μεριδάρχαι*; the subsequent subdivisions of these merides received a different name, to distinguish them from the merides, and were called not *νομός*,—district, but to avoid confusion, *νομαρχία*. In any case the name has a topographical not an explanatory meaning: like toparch, and not like oeconome or dioeketes. I doubt very much whether between the nomarchi of Alexander and those of Philadelphus there is any historical connection. The explanation for the division of the Limne into merides first and into nomarchies later lies in the important and complicated character of the functions of their chiefs, functions which

required special acquaintance with local conditions and special ability in dealing with the native population; this is also the reason for employing men of native origin for these offices. No one man could master such a task in a large district; the presence of the nomarch might be required at any moment in one or another part of his nomarchy. The nomarch ought to be in constant touch with the population, and in all the complications recorded in our documents we see that the nomarch is always at hand and the oeconome is usually absent.

In such provinces as the Fayum the nomarchi naturally played a very important part in the administration of the province, while their rôle was much more modest in the other nomes of Egypt. It is also only natural that their importance gradually decreased rather than increased, even in the Fayum. The nomarchy as an institution gradually lost its individual character and occupied a modest place in the series of various officials who worked in a nome in the last half of the third and in the second century.

If I am right in my description of the office of the nomarchi, their rôle in the life of a δωρεά, their importance for this life, and their constant relations with the manager of the δωρεά, need no special explanation. The δωρεὰ of Apollonius was one of the toparchies of a nomarchy, and the managers of the δωρεά therefore were the nearest subordinates of the nomarchi. But as these subordinates were agents of the dioeketes, the rôles were inverted, and the nomarchi were agents of Apollonius rather than chiefs of the district held by them.

APPENDIX II

ZENON UNDER EUERGETES

I have dealt in the text of my article with the correspondence of Zenon for the last years of Philadelphus, but the correspondence did not stop at the year of the death of Philadelphus. We are in possession of some letters and documents dated in the first eight years of Euergetes (see Vitelli, P.S.I. VI, p. XIII, to the no. 397, cf. P.Z. 64), and written by Zenon or for the most part addressed to him. We have rarely had occasion to quote these letters in dealing with the estate of Apollonius, because the character of the correspondence changes suddenly with the first year of Euergetes. None of the letters of this period can be referred to the affairs of the δωρεά and none even mentions the name of Apollonius. Yet Zenon still resides at Philadelphia and his interests remain the same, mostly material interests connected with agriculture, viticulture or cattle breeding.

I cannot believe that this sudden change is accidental, and I propose an hypothesis for explaining it. Of course it is merely an hypothesis, as our evidence is much more scanty than for the preceding period. We have seen that Apollonius disappeared from the stage with the first year of Euergetes and we had every reason to suppose that his career did not end in a peaceful way. The δωρεὰ of the former dioeketes disappears apparently at the same time. Is it an accident? Must we not assume that the δωρεὰ of Apollonius returned to the State and that Philadelphia became an ordinary village? But Zenon did not disappear: he remained at Philadelphia and his correspondence is still copious and full of interest. Let us investigate a little more closely the character of this correspondence.

Zenon apparently even at this period kept his connections with Alexandria, and still had some influence. In P.S.I. 392, year 6 of Euergetes, Hermocrates writes to him from Alexandria asking for help in his hardships. He has to stand trial before the King and is anxious to be acquitted; the matter seems to be of a financial character, as is shown by the technical expression ἄφεσις. He endeavours to get this acquittal by means of

bribes to those nearest the King and by seeking protection. He is short of money and asks Zenon to loan him some; in case of acquittal he will give back double the amount. He asks also for letters of recommendation. If Apollonius were alive and had kept up his connection with Zenon we should have every reason to expect mention of him, a hint at him in such a letter. Not a word is said about Apollonius.

Moreover we have seen that in the time of Philadelphus Zenon was the chief administrative official at Philadelphia. The police force of Philadelphia was certainly at his disposal. Now in his correspondence he appears as a plain inhabitant of Philadelphia writing petitions to the chief of the local police. In P.S.I. 396, year 7 of Euergetes, he complains to Horus, the chief of police, of the robbery of his wine cellar; another complaint of robbery is written in the year 6 by two farmers of his vineyards (P.S.I. 393).

Whereas in the official documents we met the official title of Zenon added to his name, we now meet with the plain designation of him and the members of his family, as παρεπίδημοι (P.S.I. 389, year 5; cf. 529), i. e., as men who did not legally belong to the population of Philadelphia, to those attached to this village whether Greek cleruchi or natives. Was he still officially a resident of Alexandria although not in possession of the citizenship of Alexandria? It is evident that if he is not called by his official title it means that he has none. If he were an official and not a private agent of Apollonius he would have still kept his title as "former so and so." But he is παρεπίδημος and nothing more.[112]

We may assume therefore that Zenon under Euergetes was no longer the manager of the δωρεά, but a rich and influential Greek bourgeois residing in Philadelphia. His years of work under Apollonius had apparently been profitable, and he had retired to private life as a wealthy man.

[112] The same title is given in an official document to the faithful assistant and perhaps relative of Zenon,—Jason from Kalynda, P.S.I. 385, year 2 of Euergetes. In this document Jason rents a clerus in Philadelphia. Cf. P.S.I. 394. The fact that these documents, which belong to Jason and not to Zenon were found in Zenon's archives testifies to the fact that Jason was a companion and probably a relative of Zenon.

His economic affairs at this period are extensive and various. He was certainly in possession of large vineyards (P.S.I. 393, year 6). His companion in these affairs was Sostratus, probably the same man who was the brother of Damis and Etearchus and an agent of Zenon.[113] The vineyard in question was very large,—60 arurae, and was situated in the neighborhood of Philadelphia. Two vinedressers were in charge of this vineyard, both Jews, Samuel and Alexander. They complained to the chief of the village police that somebody had stolen from the vineyard 30,000 reed props for the vines which had cost 12 dr. For the wine of this vineyard and perhaps of others large jars were manufactured (P.S.I. 420, year 5), which, full of wine, were kept in a special wine cellar; P.S.I. 396 mentions a robbery from this cellar of 19 κεράμια of wine. It seems also that Zenon paid large sums to the treasury τιμῆς οἴνου (P.S.I. 386,—200 dr.).

Not less important was his cattle breeding. He seems to have specialized in goats. In P.S.I. 386 he pays his ἐννόμιον, pasture tax for not less than 500 head. In P. Lond. Inv. 2084, year 4, his herdsmen are going to strike. Two are preparing to strike and one has already gone. The writer of the letter is Pataikion who was connected with Zenon for some years (P.S.I. 363 and 572, year 35; 404; 641; 620, 18; 629, 11), probably as one of the farmers of the estate. In P.S.I. 626 along with the other owners of sheep Zenon pays money for the ἐννόμιον and is registered for 175 sheep. One of the other owners is Jason whom I have mentioned above, and another is Sostratus who

[113] Here again we may suppose that all these men were relatives,—a nest of Kaunians and Kalyndians. Sostratus is known from many documents part of which I have mentioned before. In P.S.I. 410, he is again connected with Zenon; the third person mentioned in this papyrus is Keleesis, the same who appears in our papyrus as a neighbor of Zenon and Sostratus. I have no reason to suppose that the brother of Sostratus, mentioned in his letter to Hegetor (P.S.I. 431), was Zenon; the brother in question may have been either Damis or Etearchus to whom Sostratus sent some pigs from the herds of Appollonius for sacrifice. Nor have I reason to recognize in the Sostratus mentioned so often in the Zenon papyri, more than one man of that name. In any case the close connection of Zenon and Sostratus makes it probable that Sostratus was a relative or at least a fellow countryman of Zenon.

owns one hundred sheep. The sheep of Zenon are in the hands of some shepherds: Pasis has thirty-five and Theodotus forty. Certainly Zenon at this period deals in wool (P. Lond. Inv. 2081, year 4) and is connected with the manufacture of woollen stuffs (P.S.I. 387, year 4; 593; cf. for the date, 389). As a companion of Sostratus Zenon seems also to have maintained his relations with the beekeepers (P.S.I. 524; cf. 391, years 6 and 7). Finally he possesses at least one bath at Κοῖται (P.S.I. 395) and farms some land from other people (P.S.I. 390, year 5, cf. 388 verso and 385; cf. P.S.I. 400 and P. Z. 43). But his main occupation seems to be lending money. In the year 5 he lends 150 dr. to a cleruch (P.S.I. 389). Perhaps to the same period belongs P.S.I. 529 where Nomus asks Zenon to lend him money and offers as pledge his slave. Also not dated is P.S.I. 532: two sons of a woman Thamoos are in prison for debt; the mother asks to have them released and promises that they will repay the loan by working for Zenon. Zenon seems to have begun such operations a long time before he resigned or was dismissed (P.S.I. 369, year 36).

Such was the independent husbandry of Zenon after he ceased to be the manager of Apollonius. We may suppose that Zenon was a prominent person at Philadelphia during his stay there in the first seven years of Euergetes. One of the papyri of this time (P.S.I. 391, year 6) shows him being consulted about the money to be spent for the gymnasium of Philadelphia; the persons interested in it were cavalry soldiers who formed the main part of the Greek inhabitants of Philadelphia.

APPENDIX III

APOLLONIUS THE DIOEKETES AS A CONTRACTOR OF PUBLIC WORKS?

In discussing the construction of dykes, canals and sluices in the Fayum under Ptolemaeus Philadelphus, I have not mentioned a curious series of papyri which deal with the work of stone cutters (λατόμοι), who were partly free men (ἐλευθερολατόμοι), in the quarries somewhere near Philadelphia. The series in itself seems to have no relation to the works carried out on the estate of Apollonius, but seems to be closely connected with the activity of Apollonius as dioeketes. The work done by the stone cutters was certainly a part of the irrigation work, which included the creation of a system of land and water ways in this part of the Fayum.

The key for understanding the whole series of documents is given by two Papyri Petrie, II, 4, 2—III, 42 (c), 4 and II, 13, 1—III, 42 (c), 12, both of the year 30. The first of these papyri is a letter of Apollonius to Kleon the engineer concerning a contract concluded by Apollonius and the tenmen (δεκατάρχαι) of the stone cutters through Diotimus as the intermediary. According to the contract Kleon must supply the stone cutters with the iron implements for their work. There is no doubt that Apollonius, the author of this letter, is Apollonius the dioeketes and Diotimus, his assistant, is the sub-dioeketes. The second papyrus mentioned above refers to the same contract and speaks of Apollonius as the dioeketes. The tenmen of the stone cutters complain in this document that they do not get what was stipulated in their contract (γραφή) which is in the hands of Diotimus the sub-dioeketes and Dionysius the oeconome. The same stone work forms the subject of one of the papyri of the correspondence of Zenon (P.S.I. 423, no date). The document is a letter of Horus who digs wells (φρέατα) and ditches (ὀχετοί). He denounces in this letter another man who works in the same region, using the labour of prisoners (δεσμῶται), and offers to carry out all the work alone as he is well provided with men. Zenon, to whom the letter is addressed,

should come to measure the work already done and should also send food for the workers. Is it an accident that prisoners (δεσμῶται) sent by Apollonius appear again in P. Petrie II, 13, 3 and 4, cf. 4, 10—III, 42 (c), 8 and 9? In P. Petrie II, 13, 3, they are building an ὀχύρωμα, that is, walls to strengthen the banks of a canal for the construction of a bridge or sluice. The editors understand ὀχύρωμα as a prison! Other papyri of the same series also refer to Apollonius. In P. Petrie II, 4, 8—III, 42 (c), 1, one hundred and forty stone cutters are idle; they point out that the dioeketes may be angry as he wants speedy work (τοῦ διοικητοῦ σπεύδοντος). Similar complaints are found in P. Petrie II, 4, 1,—although Apollonius the supervisor of the work (ἐργοδιώκτης), of this papyrus is of course not Apollonius the dioeketes, and also in P. Petrie II, 4, 9—III, 42 (c), 2.

How can we explain the active part taken by the dioeketes in this work of the stone cutters? He appears here not only as a person interested in the progress of the work but also as the employer of the stone cutters. The explanation of this fact may be found in P. Petrie II, 13, 18 (b) and 13, 6—III, 42 (g), 7 and 4, no date, which tell us that a certain Apollonius, "for the purpose of relieving the King" (κουφίζων τὸν βασιλέα), took over as a contractor the whole work in the quarries, and was giving out parts of the work to minor contractors. May we not connect this papyrus with the series referred to above, and also with another series which deals with the repair of the roads in this part of the Fayum; for this purpose stone is being brought on special barges (λιθηγοί)? (See P. Petrie II, 13, 18 (a) and III, 46, 1.) The work is done at full speed because the administration expects a visit from the King. Apollonius himself asks for reports on the progress of this work (P. Petrie III, 46, 1).[114]

I cannot help thinking that the three series of documents form a unit. I suppose that a visit of the King was imminent. He intended to come for an inspection of the irrigation work. We know from one letter of Metrodora, wife of Kleon the engineer, that this visit ended badly for Kleon. Is it not natural

[114] Perhaps this journey is identical with that of the year 32, which was announced by Athenagoras to the oeconome of the Memphite Hermolaus. See the letter of Bubalus to Zenon, P.S.I. 354.

to assume that Apollonius, well acquainted with the plans of the King and seeing that the work progressed but slowly because of the lack of contractors, decided to take up the work himself and to carry it out by means of subletting the work to minor contractors and to squads of free stone cutters?[115]

[115] I do not discuss here the opinions of the other scholars who have dealt with the same series of papyri. See their works quoted above in note 61.

APPENDIX IV

THE HISTORY OF THE NOMOI ΤΕΛΩΝΙΚΟΙ OF PTOLEMY PHILADELPHUS

As far as I know nobody as yet has investigated the history of the Revenue Laws, the *νόμοι τελωνικοί* of Ptolemy Philadelphus. And yet the document itself tells its history. The first part of the papyrus contains the general *νόμος τελωνικός*, which dictates the general conditions on which the farms were given out. It is dated probably in the same year of Philadelphus as the law on the apomoira and the law on the *ἐλαικὴ*, in the year 27 of his rule. More complicated is the history of the following section which deals with the apomoira. The new organization of the tax called apomoira, a sixth or a tenth of the produce of the vineyards and gardens, was introduced in the year 23 of Philadelphus. In this year are dated two orders (*προστάγματα*) of the King each followed by a single *πρόγραμμα* or *διάγραμμα*. The orders are short and of a very general character, introducing the *προγράμματα* or *διαγράμματα*, which in their turn prescribed certain preliminaries to the collection of the apomoira. I have mentioned and described them in the text of my article, p. 42 ff. No detailed measures for the collection of the apomoira are published in our document with the orders of the year 23. But such measures originally existed in the series of documents of the year 23. In the existing document they are replaced by the order of the year 27 and by the text of the law on the collection of the apomoira. The history of the law on the apomoira was then as follows. In the year 23 three orders were published by the King: two of them introduced orders to collect preliminary statistics necessary for the collection of the apomoira; the third introduced the law on the collection of the apomoira and ordered the collection to be carried out. In the year 27 this last order and the law were republished with modifications and were dated in the year 27; the first two orders of the year 23 were appended to this order and to the law.

The next section of the R. L. contains the *νόμος ἐλαικῆς*. There are no documents appended to this law. The law

apparently was a new one, first introduced in the year 27 by Philadelphus. The first lines of this section are missing. But I presume that there was no *πρόσταγμα* at the beginning but simply a heading, e. g., *Διάγραμμα ἐλαικῆς* like *Διάγραμμα τραπεζῶν* (col. 73) or *Νόμος ἐλαικῆς* like *Νόμος δεκάτης* (col. 80). We know too little of the Hellenistic legal terminology to understand the difference between *νόμος* and *διάγραμμα*. The heading of the next section, that on the *ὀθονιηρά* (col. 87 ff.), is not preserved.

The whole document seems to be an attempt at a codification of the rules which regulated those parts of the State economy which were organized as incomes of the State collected by tax farmers. Some of the taxes which were dealt with in the new law were farmed before the publication of this attempt at a codification; for some taxes the farm system was first introduced by the new law. The "Codex" was published by the order of the King by the dioeketes Apollonius and was compiled by his officials. The notes in the copy which preserved for us the regulations (col. 22 and 38) were written by the man who was sent to Alexandria to copy the roll for the officials of the Fayum and who made the copy in the office of the dioeketes Apollonius. If my attempt at tracing the history of the R. L. is correct, we may assume that Satyrus, the predecessor of Apollonius, was the author of the *Νόμος ἕκτης*,, the law on the apomoira, and that Apollonius was the author of the codified *Νόμοι τελωνικοὶ* and of the *Νόμος ἐλαικῆς*.

APPENDIX V

THE BREEDING OF HORSES BY PTOLEMY PHILADELPHUS

In the works on the organization of the Ptolemaic army no attention has been paid to the highly important question as to how the Ptolemies supplied their cavalry with horses. We must keep in mind the fact that cavalry played an important part in the Ptolemaic army in three subdivisions: the horse regiments, the elephants or tanks of the ancients, and the armed chariots which were a heritage from the ancient Orient. On the means by which the army was supplied with elephants, see my articles in *Arch.* IV, p. 301 and V, p. 18; Lesquier, *Les institutions militaires sous les Lagides*, p. 353; Wilcken, *Grundz.*, p. 263, and the new evidence in P. Tebt. III. But the question of the horses was never treated in full and there are only a few words in Lesquier, l. cit., p. 103. If we take into account the picture which is given by Appian of the strength of the Ptolemaic cavalry (Appian, *Prooem.* 10: *καὶ τοῖς ἐμοῖς βασιλεῦσι μόνοις ἦν στρατιά τε πεζῶν μυριάδες εἴκοσι καὶ μυριάδες ἱππέων τέσσαρες καὶ ἐλέφαντες πολεμισταὶ τριακόσιοι καὶ ἅρματα ἐς μάχας δισχίλια*), we must suppose that large studs existed both in Egypt and in the Ptolemaic provinces, especially in such provinces as the Ammanitis,—a large prairie land famous for its horses (see above note 35). We have seen that Tubias, the sheikh of this land on one occasion sent to Philadelphus as a personal present (*ξένια*) horses and donkeys. Horse breeding was certainly carried on in Egypt also in spite of the unfavourable conditions. Studs in Middle Egypt and in the Arsinoite are often mentioned in the Hibeh, Petrie and Tebtunis papyri (see P. Hib. 118, a, col. II and b, col. I; 162; P. Petrie III, 62 (b); P. Tebt. 842—*βασιλικοὶ ἵπποι* and *ἱπποτρόφοι*). We have seen that Apollonius himself indulged in horse breeding on his estate. I should like to connect with these documents two documents of the Petrie series. P. Petrie III, 54 deals with horses of the Ptolemaic soldiers, probably cleruchi. Special inspectors of horses are mentioned and the duty of *ἱπποτροφεῖν*

(feeding the horses) seems to lie with the cleruchi. Can we not assume that the soldiers kept the horses given to them by the State even after the expeditions, when they were spending their time in their quarters (σταθμοὶ) or on their cleri, under the obligation of caring for the horses and of feeding them; by the way, a good parallel to the Roman *equites equo publico* and *equo privato*. Is the Antiochus mentioned in this papyrus not the same as the Antiochus of P. Hal. 1, 166, *Dikaiomata* p. 98? More instructive still is the series of documents P. Petrie II, 25—III, 61, year 21 of Euergetes. The editors call these documents "*Accounts of 'vetturini.'*" But a mere glance at the documents shows that they are accounts of food delivered to horses and men divided into συνωρίδες and ἅρματα (chariots of two and four horses?); the men are called ἡνίοχοι and ἱπποκόμοι,—coachmen and grooms. These horses and men were moving in detachments through Ptolemais Hormu, probably northward, and some of them stopped for a while at this landing place. Food was delivered to them on the order of the oeconome according to τὴν παρὰ Ἀρτέμωνος τοῦ ἐπιστάτου τῶν κατὰ τὴν χώραν (ἵππων or ἱπποτροφίων?) ἐντολήν. The names ἅρματα and συνωρίδες being technical names, the journey of the detachments must have had an official character. I have no doubt that the ἅρματα and συνωρίδες were either military chariots moving towards Alexandria for shipment to the place where the army was operating, or perhaps were race horses going to Greece to take part in some world-famous races. Either assumption is possible and both testify to extensive horse breeding in Egypt for the purposes of which a constant supply of fresh horses from Arabia was a prime necessity.

ADDENDA ET CORRIGENDA

CHAPTER I

While my manuscript was already in the press Mr. C. C. Edgar published three new articles on the Zenon papyri: V (*Annales du Service des Antiquités de l'Égypte,* XX, 19 ff.) containing nos. 49–54 and additions to nos. 36 and 46; VI (*ibid.*, p. 181 ff.) containing nos. 55–64, and VII (*ibid.*, XXI, p. 89 ff.) containing nos. 65 and 66. The new documents are mostly well preserved and each of them supplies us with new and valuable information. One new papyrus of the Zenon series was acquired by the University of Michigan (Inv. 40, quoted P. Mich.) and was published by Prof. A. E. R. Boak in the *Alumni Journal* of the University of Michigan for the current year in facsimile and translation. Finally Dr. H. I. Bell has sent me his copies of 22 new letters of the Zenon archives recently purchased by the British Museum. The study of these new documents has corroborated most of the views expressed in my paper. Except for some minor corrections which I was able to insert into the proofs of my book, I had nothing to change in the text. Nevertheless the new evidence is important; it throws new light on several debated questions and gives to some of my hypotheses the character of ascertained facts. Therefore I have thought it useful to report in these "Addenda et Corrigenda" on the content of the new documents and to assign to several of them the place which they should have occupied in my book had I had the opportunity of using the new evidence in time. Most valuable is the information on the end of the career of Apollonius and on the life of Zenon under Euergetes.

CHAPTER II

Contemporaneously with the Zenon papyri documents of other periods were found in Philadelphia. Philadelphia seems to have been a vast field of haphazard exploration since 1914 and during the War. Beside those mentioned in the text, this exploration yielded the valuable papyrus containing an edict of the Emperor Hadrian which was lately published by Jouguet

in *Rev. d. études gr.*, XXXIII (1920), 375 ff. Some others of the same series and time are in the Cairo Museum and will certainly yield new information on the history of Philadelphia in the late Hellenistic and the Roman period.

CHAPTER III

P. 20. My hypothesis on the disgrace and perhaps the violent death of *Apollonius* after Euergetes became King of Egypt was fully confirmed by two new documents of the Cairo Museum (P.Z. 61 and 55). The first is dated in the year 5 or 6 of Euergetes. It is a document dealing with the payments due from a surety of an insolvent contractor of Philadelphia. The persons to whom these payments were due are the former and the actual chiefs (ἐπιστάται) of the territory of Philadelphia which is called now officially "the Philadelphian toparchy" (οἱ κατὰ Φιλαδέλφειαν i. e. τόποι). This territory in 1. 1 ff. of the document is described more fully as "the lands round Philadelphia, formerly the estate of Apollonius" (. . . κατὰ Φιλαδέλφειαν τῆς πρότ[ε]ρον οὔσης Ἀπολλωνίου δ[ωρεᾶς]) and in 1. 5 ff. the chief of the territory is called "epistates of the lands round Philadelphia when the estate of Apollonius has been confiscated after his death" (the Greek text is fragmentary and not yet satisfactorily restored in spite of the efforts of Edgar and Grenfell, but the general sense of the passage is clear). The date of this confiscation and of the death of Apollonius is supplied by the second Cairo papyrus, P.Z. 55, year 1 of Euergetes; my interpretation of this document is different from that of Edgar. The writer of this letter, probably addressed to Zenon, asks Zenon (?) to give him a new house in the village. He lived formerly in the house which belonged to Phileas, the former secretary of the Arsinoites (probably an officer, the secretary of the horsemen who were settled in the Fayum). "But now," he says, "as the estate was taken away from the dioeketes and they bid me to move from these quarters" he insists on receiving another house (l. 4 ff.: κε[κό]μισται γὰρ τὰ ὑπάρχοντα παρὰ διοικητοῦ/καὶ κελεύουσι ἡμ[ᾶς] παρ'αὐτοῦ ἐκχωρεῖν). My interpretation implies that the writer of the letter lived in a house which was the property of Apollonius and was given by him to Phileas as a military lodging (σταθμός). Now when the house

was confiscated as a part of Apollonius' estate, the new administration bade the occupants move. If the letter were addressed to Zenon, he may still have been the manager of the former estate of Apollonius. If my explanation of the document be correct the confiscation of Apollonius' estate was carried out in the first year of Euergetes. The first of the documents quoted above decides the question as to what happened to the estate of Apollonius after its confiscation. The lands around Philadelphia formed now as before a separate territory; but it was no more a δωρεά, as it was not given to another holder but was managed by a state official with the title epistates. It is an interesting problem whether this was a temporary or a lasting arrangement and what kind of functionaries these epistatae were. From the Magdola documents we know of some functionaries with the title of epistatae. They seem to have acted as chiefs of police of this village. Can we identify their position with that of the epistatae of Philadelphia whose functions were of an economic, not of an administrative character? I reserve my judgment on this question and on the question of the epistatae in general until we have more material. Thus far, the epistatae seem to me to have been not regular but emergency officials (cf. Wilcken, *Grundzüge*, p. 412; P. Meyer, *Juristische Papyri*, no. 76 (p. 265), note 5).

No new decisive evidence is furnished by the new Cairo papyri on the question of the *successors of Apollonius* in the office of dioeketes. In P.Z. 62, year 6 of Euergetes, and P.Z. 63, year 7, two high officials are mentioned: Zenodorus and his chief Sosibius. The latter may be identical with the well known prime minister of Philopator, who played such an important part in the history of his reign (see Edgar, P.Z. VII, p. 91, note 1), comp. Anc. Gr. Inscr. in the Br. Mus. 819 which shows that he had at one time of his career close relations with the province of Caria). Both Sosibius and Zenodorus are dealing in these documents with economic and financial affairs of the country. It may be that Sosibius was the dioeketes and Zenodorus one of the subdioeketae. Edgar may be right in assigning Theogenes, the dioeketes of the years 5 and 6 of one of the Ptolemies of the third century B.C., to a later time, to the reign of Philopator (P. Petrie II, 38(b); P. Lille 3 and 4; Edgar, P.Z. VI, p. 198,

note 1). Be it as it may, we still have no decisive evidence on the immediate successor of Apollonius, whom I supposed to be Kleandrus.

P. 26. A series of new and highly interesting documents (P.Z. 54, year 39) throws new light on the *provincial administration* of the Ptolemies. The documents deal with Kalynda in Caria. I have no doubt that the strategi and oeconomes mentioned in these documents are officials of the central administration and not local magistrates. Their superior in their financial activities is the dioeketes. He and his subordinates in Caria are anxious to keep the finances of the provincial cities in good order and they exercise therefore strict control over them. That is the reason why they interfere in matters which may seem to be of purely local interest (cf. Anc. Gr. Inscr. in the Br. Mus. 897; Usener, *Neues Rhein. Mus.*, XXV, 49; R. Dareste, *Bull. de corr. hell.*, IV, 341 ff.). The Alexandrian administration had also of course the decisive word in all exemptions from taxation and from other burdens which in the first instance were managed by the local magistrates. The same kind of control was exercised later over the finances of the self-governing cities of the Roman provinces by the governors of these provinces (*proconsules, propraetores, legati*), the financial agents of the Emperors (*procuratores*) and later by special officials appointed by the Emperors, the *curatores* and *correctores*. It is only natural that the central administration paid much attention to the city finances as the cities were responsible for the taxes of their districts, and disorder in their finances deeply involved the finances of the State.

CHAPTER IV

P. 32. To the group of documents dealing with the *Alexandrian palaestra* and the boys who were educated there and in whom Zenon took such a vivid interest we may now add P. Lond. Inv. 2312 which is a somewhat corrected duplicate of P.Z. 11. Another duplicate of the same document giving the second part of P.Z. 11 is in the Cairo Museum (still unpublished). The study of the new document led me to reconsider our evidence on the palaestra. There is another explanation of the documents dealing with the palaestra which is perhaps more probable than that which I suggested in the text of my

article. In the Alexandrian palaestra boys were trained to take part in the contests and games which were organized on Greek lines by the Ptolemies in different parts of the country. One of the boys mentioned in the correspondence of Zenon, Pyrrus, was trained in athletics (P.Z. 11; P. Lond. Inv. 2312). Zenon bears the cost of his training and even apparently supports the family of the boy, especially his mother (P.Z. 11, l. 8 ff.; P.S.I. 443). He is keenly interested in his victory. The trainer of the boy and the director of the palaestra Hierocles explains to him in his letter that there is no reason whatever to be anxious about the success of the boy, as he is doing very well. "With the help of the Gods," he says, "I am confident that you wil be crowned." The keen interest of Zenon in the issue of some contests is testified also by P.S.I. 364, year 35. Zenodorus informs Zenon in this letter that Dionysius, the brother of Zenodorus, has won the prize in the game in honour of the Ptolemies at Hiera Nesos (a village of the Fayum). Besides Alexandria there was a palaestra in Philadelphia which was supported by voluntary contributions of the inhabitants, P.S.I. 391. In this palaestra the cavalry soldiers who lived in the village were keenly interested. The director of this palaestra was Demeas; he died (P. Lond. Inv. 2096, l. 3) and was replaced by Agelaos and Philus in the year 6 of Euergetes. As in the Alexandrian palaestra boys were trained in Philadelphia to take part in the games. One of these boys, Herakleotes writes a long memorandum addressed to Zenon and to Nestor, P. Lond. Inv. 2096. The latter is identical with the person who wrote the letter P.S.I. 391, which informs us of the existence of and of the prevailing conditions in the palaestra of Philadelphia. Nestor and Zenon seem to have been honorary presidents of this palaestra. The boy Herakleotes is trained in music (κιθαρωδική). He received from his former director, late Demeas, by bequest a musical instrument, an ὄργανον; something happened with this instrument (it is now in the hands of a certain Kleon), and the boy asks to give him back this instrument or to buy for him another of the same quality. Moreover, the boy is anxious about his pension, which he receives apparently from Zenon and Nestor, and insists on this pension being increased. Herakleotes emphasizes twice that he is a free boy (ἐλεύθερος, l. 12 and 24), which implies perhaps that the palaestra educated not only

free boys but also slaves (note that Pyrrus is called παιδάριον). Such are the documents. What was the reason for Zenon to show so keen an interest in the palaestrae both in Alexandria and in Philadelphia and to support boys trained in these palaestrae, to invest in them large sums of money? It is hardly possible that Pyrrus and Herakleotes were relatives of Zenon and Nestor. They and their educators would certainly emphasize it in their letters if it were so. On the other hand the victory of Pyrrus is the victory of Zenon and Zenon was very anxious about this victory. He is afraid to waste his money. We may of course suppose a purely sportive interest of Zenon and Nestor. But is it not more probable that the interest was not only of a sportive character but that Zenon and Nestor were interested materially in the victory of their boys? In the Hellenistic period the Greek agones were contests of professionals and the prizes consisted not only in crowns but also in comparatively large sums of money. Large sums could be also gained by betting on the best trained boys. The matter requires careful investigation which cannot be given here. Our documents must be compared with the inscriptions of the same period. See meanwhile F. Klee, *Zur Geschichte der gymnischen Agone an griechischen Festen*, Leipzig, 1918, a book which I was unable to consult.

P. 41. My hypothesis of *Artemidorus* having taken the post of oeconome held formerly by Zenon in the household of Apollonius seems to be confirmed by P.Z. 49, of the year 39. In this letter Artemidorus appears as a man entitled to send out instructions for Zenon. In P.Z. 50, of the year 36, we meet *Kriton*, the stolarch. His agent is buying up grain probably for Kriton.

CHAPTER V

P. 50. A duplicate of P.Z. 36 (P.Z. V, p. 19), l. 20 shows that Philadelphia even under Zenon had a *village scribe* (κωμογραμματεύς). From the year 31 to the year 36 the duties of the village scribe were performed in Philadelphia by *Anosis*, see P.S.I. 356, 4; 434, 11 ff.; 441, 26; 664, 5; P. Lond. Inv. 2310, 21, an Egyptian. My statement in the text should be corrected according to this new evidence.

P. 52.[116] From some new documents and from several already mentioned in the correspondence of Zenon we may infer that Apollonius was not the only owner of a large estate in the neighborhood of Philadelphia. Many other men of his standing seem to have had either δωρεαὶ or large military holdings in this part of the Arsinoite. Such a rich and influential landholder was *Philinus*. In P.S.I. 513, l. 11, year 34, he is mentioned as the eponyme of a military corps, some officers of which received lands in the territory of Philadelphia. He occupied therefore a very high military position under Ptolemy Philadelphus. With Zenon he was in constant relations and certainly on very friendly terms. In P.S.I. 569 he is sending to Zenon some specimens of rare fowl especially cocks and hens (see above p. 110) and asks Zenon to give to his agent Moschus some double cloaks. In P.S.I. 527 Zenon sends to him some donkeys with suitable harness. But the most characteristic documents are the letters P. Lond. Inv. 2307 and P.S.I. 600. In the first Philinus asks Zenon to deliver to a certain Posidonius one keramion of sweet wine and to send to himself some boiled wine, some honey and an animal for sacrifice, probably a calf. Zenon must hurry "for we must be in time for the visit of the King." Another short billet of the same type and probably time is P.S.I. 600. Philinus asks Zenon to hand over a calf to a servant of Diognetus, the calf-breeder to be sent in safety to Philinus. It is evident that a visit of the king was imminent, and Philinus was preparing a banquet for him. I cannot help thinking that another banquet of the same kind was given to the King in Philadelphia itself by Apollonius or by Zenon in his name. We possess a curious list of names in the archives of Zenon (P.S.I. 548). The list contains thirteen names, all Greek. One of the persons enumerated in this list is Philinus, another Posidonius, his friend mentioned above, two more are Themistus and Zoilus, son of Telestes. We shall see presently that both Themistus and Telestes were persons of high military rank. I cannot help thinking that the names in the list are those of the officers who lived near Philadelphia and whom Zenon intended to invite to take part in the reception of the King.

Another neighbor of Apollonius and probably holder of a large estate was *Telestes*. He is mentioned several times in the

[116] Cf. p. 76, note 67 and 151, note 107.

Zenon papyri. In P.S.I. 502, l. 15, Zoilus the oeconome accompanied Telestes in his journey of inspection; in P.S.I. 569 his agent Libanus is mentioned, and the same Libanus is mentioned again in 562 as a man who had at his disposal some camels. There is no doubt that Telestes is identical with the general mentioned twice in the Hibeh papyri (85, 14 and 99, 8). From P. Lond. Inv. 2308 we may conclude that he owned land and herds in the neighborhood of Philadelphia. In the year 6 of Euergetes Phanias, an agent of Zenon, buys for Zenon 81 sheep sold "at the auction of Telestes," l. 8 and 15 (ἐκ τῆς Τελέστου / ἀπαρτείας). The same sale is meant and the same Phanias is acting in P.S.I. 438, cf. 539. Apparently Telestes and his estate have met the same fate as did Apollonius and his estate. Under Euergetes the lands and the belongings of Telestes were confiscated and sold at auction. Zenon did not fail to profit on this occasion. He buys rare sheep for a ridiculous price—81 sheep for 64 drachmae. Finally *Themistus* was the holder of an estate near one of the many villages of the Fayum with the name Ptolemais (P.S.I. 366, year 36). Themistus was probably the man after whom the "region of Themistus" (Θεμίστου μερίς), one of the three subdivisions of the Arsinoite nome was named. As P.S.I. 366 names the well known Damis as the agent of Themistus we may conclude that the estate of Themistus belonged to the same nomarchy as that of Apollonius. I remind the reader that Themistus is one of the officers enumerated in the list, P.S.I. 548.

CHAPTER VI

P. 62. With P.S.I. 488 must be compared the fragmentary but exceedingly interesting P. Lond. Inv. 2315. Like P.S.I. 488 it is an offer of a contractor to undertake some work connected with the building activity of Apollonius near Memphis. A certain Techestheus makes an offer to Zenon to extract some gravel (χάλιξ) from a rocky place near Memphis and to deliver it for shipment. The offer reminds one of the contracts concluded by Theodorus, the architect. In a postscript the same man offers his services for providing a village (Philadelphia?) with water. In a somewhat similar document, P. Lond. Inv. 2311, a man whose name is not preserved, but whom I suspect to be the engineer Kleon, orders Apollonius to reinforce one of

the sluices, probably in the territory of Philadelphia. Apollonius has at his disposal a man with the name Leonidas and a workman on a monthly wage (καταμήνιος).

P. 69. It is worthy of note that along with a garden which was planted for Apollonius in Philadelphia (P.Z. 21, year 29) a grove of trees or a park (ἄλσος) was also planted, probably at the same time, P. Lond. Inv. 2313, l. 8. The superintendent of this planting is Hermogenes; ten slaves are helping him. There was also a large fruit garden in Philadelphia (παράδεισος) of which the managers were Herakleides and his son Ptolemaeus, P. Lond. Inv. 2313, col. 3.

CHAPTER VII

P. 81. Another farmer of the type of Dionysius was *Paopis*. His letter to Zenon is preserved in P. Lond. Inv. 2316. He built for himself a house in Philadelphia and was therefore an emigrant. His parcel like that of Dionysius consisted of marshy land covered with reeds and brush wood. For the clearing of this land he received a payment in money: he claims that one hundred drachmae for the clearing of twenty-four arurae were still unpaid; the operation which he performed he calls ἐπικοπάς cf. P.S.I. 323. But there was not very much wood on his plot, mostly reeds. An interesting feature of his husbandry is that he has a sub-farmer and uses hired labour (σώματα) which of course was paid for in kind and in money by the estate—another instance of the estate furnishing labour to the individual farmers. Still more interesting is P. Lond. Inv. 2312. It is a long expense account. In the first column are enumerated farmers, superintendents of different parts of the estate who received labour, probably slave labour (παιδάρια) from the estate and money for its payment. I suppose that the labourers were slaves since for the hired labourers the correspondents of Zenon use not the word παιδάρια (cf. παιδίσκαι P.S.I. 667 and παιδάρια P.S.I. 628, 20) but either σώματα or μισθωτοὶ or καταμήνιοι, and the terms παιδάρια and παιδίσκαι are frequently used for men and women employed in the textile industry. Some of the superintendents who are enumerated in the account are well known to us: *Kerkion* who grows wheat (cf. P.S.I. 422; 670) employs thirty slaves for weeding his fields; *Mys* (P.S.I. 640, cf. 551 verso l. 20; 576, l. 1) employs the same number for

weeding his flax; *Labos* (P.S.I. 427, 6 and 371) employs fifteen men for clearing his chick-pea crops; *Peteminis*, an Arab (P.S.I. 368; 519, 1; 596), employs thirty for his kiki-plantation; *Onnophris* (P.S.I. 427, 12; 422; 522, 4; 588; 639; P. Hamb. 27) received ten slaves for weeding poppy crops. Besides these we have *Andronicus* who plants olive trees with the help of ten slaves, *Hermogenes* who plants a park with the same number of slaves and *Herakleides*, the superintendent of a fruit garden (cf. P.S.I. 672, see above p. 177). A certain Dionysius is called "planter" (φυτουργός) and receives a monthly payment. *Agathon* is perhaps identical with the farmer of P.S.I. 400. Some other names occur in the document for the first time, probably wage-workers. The document is very instructive as showing the variety of crops grown on the estate and the large number of men employed for the purpose.

P. 89. It is evident that the estate of Apollonius carried out many and various *commercial operations* connected with the economic life of the estate. The estate had many goods to sell and no less to buy. The special agent of Zenon in this respect was *Sosus*. He was mentioned in many documents but his functions were not quite clear to me (P.S.I. 362, year 35; 589 (no date); cf. 439, year 4 of Euergetes). That is the reason why I have not mentioned him in the text. P. Mich. Inv. 40 leaves no doubt as to his functions. He is the salesman of the estate. He sells grain. He superintends the purchase of hides. He ships wine. He has on hand some gum, evidently for sale also (gum-styrax, modern storax, was taken from trees in upper Egypt; in P.Z. 63, year 7 of Euergetes one of the "Carian nest," Sostratus, mentions his expedition to upper Egypt for this purpose; the operation is called ὀπισμός; cf. P.S.I. 628, l. 10, note and 620, l. 6, note). Another agent of the same kind was *Pyron*, P.S.I. 418 and 571, who was employed by Zenon for different purposes. His business is big enough to oblige him to have in his pay two secretaries. In P.S.I. 571 he is engaged in buying up poppy seed. It is typical that Pyron asks Zenon to give him a parcel of land. It shows that many of the agents of Zenon were farmers "on the side" so to say. The fragmentary letter P. Lond. Inv. 2326 which deals with matters similar to those touched on in P. Mich. Inv. 40 may have been written by the

same man, Sosus. Besides grain and wine the estate produced and sold large quantities of hay, P.S.I. 354 and 559. I suppose that hay was bought up by the State for the cavalry horses, cf. p. 183.

CHAPTER VIII

In P.Z. 51, year 37 we meet two more *vine-dressers*, *Apollonius* and *Menippus*. The same document testifies again to the production of vegetables in the vineyards. The man with the name *Metrodorus* (P.Z. 51, 52; P.S.I. 429, 29; P. Lond. Inv. 2323) is not an agent of Zenon but a state official. One of his duties is to appoint and to pay the guards of the vineyards (P.Z. 51) for which purpose a special tax was collected (the φυλακιτικὸν ἀμπελώνων). He has also to do with the collection of taxes paid by the owners of vineyards. The same P.Z. 52 decides the question of the existence of a special land tax paid by the owners of vineyards (ἐπαρούριον). The usual rate was 3 drachmae for one arura.

CHAPTER IX

P. 109. Interesting data on *swine breeding* are furnished by P.Z. 49, year 36. A large herd of 400 pigs was rented to a swine breeder *Petos* for the payment of 211 little pigs a year. This man fled with the herd leaving only seven pigs and a certain number of little pigs. An order is given to arrest his sureties or to exact the money from them. It is worthy of note that the swine breeders like the beekeepers and the breeders of geese were mostly natives. Swine breeding seems to be very ancient in Egypt and pigs were used not only for providing meat but for agricultural purposes also, e.g. for treading corn on the threshing floors and for treading in the grain when the fields had been sown, see Edgar P.S. 49, Intro., cf. O. Keller, *Die antike Thierwelt*, p. 394.

P. 113. P.Z. 53, year 39 deals with *goats*. I have mentioned in the text some documents which testify to a large part played in this field by Arabs. These Arabs seem to have dwelt in Egypt for a long time as three of them have Greek names: *Demetrius* the tenman of the tribe (P.S.I. 386; 538, l. 1; P. Lond. Inv. 2084), *Limnaeus* (P. Lond. Inv. 2084) and *Hermias* (P. Lond. Inv. 2084; P.S.I. 380); two have Egyptian names; *Petechon*

(P.S.I. 538, cf. 571) and *Peteminis* (P.S.I. 368; 519; 596; P. Lond. Inv. 2312). Three of them, Demetrius, Limnaeus and Hermias appear again in P.Z. 53. Jason, the well-known superintendent and assistant of Zenon rents to Demetrius and Limnaeus a herd of 144 she-goats. They agree to pay yearly for the use of this herd 216 young goats. Hermias and a son of Demetrius *Apollonius* act as sureties. The conditions are the same as in the domain of swine breeding. After the death of Apollonius these Arabs were still in Philadelphia renting herds from Zenon, see P. Lond. Inv. 2084, year 4 of Euergetes (the writer of this letter *Pataikion* is a well-known agent of Zenon P.S.I. 363; 404; 572; 620; 629; 641) and P.Z. 60, year 5. The high rent paid by the goatherders as compared with the relatively low rent paid by the swine breeders is explained probably by the fact that the goatherders had less expense for feeding their animals. Unfortunately the part of P.Z. 53 which dealt probably with the taxes and the payments for the pasture land is not preserved. Cf. the similar contracts enumerated in P. Meyer, *Juristische Papyri*, no. 4a.

P. 114. The reference in P. Lond. Inv. 2308 (above p. 176) to sheep clothed in skins (*πρόβατα ὑποδίφθερα*, oves pellitae) which belonged to Telestes is another instance of the progressive character of the husbandry of the third century B.C. The same kind of sheep are also mentioned in P. Petrie III, 109. It is an account of the payments of different taxes by some holders of military plots. This kind of sheep was certainly imported to Egypt from Asia Minor or Greece by the cleruchi. We may suppose that the custom originated in Asia Minor, in the Lydian kingdom and the Ionian colonies (Strabo, XII, 546, implies that the custom was widely spread in Asia Minor), spread thence to Greece (Attica and Megara, see Varro, *r.r.*, II, 2 and Diog. L., VI, 41) and to Italy, especially to Tarentum (Varro, *r.r.*, II, 2; Columella, VII, 20 Hor., *Carm.*, II, 6, 10; Strabo, IV, p. 196). It is worthy of note that one of the chief importers of such novelties into Egypt was Telestes. He owned the skin clothed sheep; his manager used camels in his husbandry; note also the love of Philinus and Zenon for rare fowl.

P. 115. As regards the use of *slaves* in different branches of *industry* in Ptolemaic Egypt new evidence is furnished by the big document P.Z. 65, year 4 of Euergetes. The man who owes

money to Zenon was in the service of Apollonius and employed girl slaves in his business. Unfortunately we do not know what was his trade. Edgar may be right in supposing that he ran a bakery.

P. 117. An important branch of trade in Philadelphia was the fabrication of *pottery*. Philadelphia as an important centre of wine production needed large quantities of jars. P.Z. 61, year 5–6 of Euergetes shows that this branch of industry was managed in the same way as the others of which I spoke in the text of my article. The right of making jars was a concession (ὠνή) and was rented to a contractor who paid for it in kind, furnishing the estate with the jars needed for the keeping of wine. After the death of Philadelphus the epistates played in this domain the part which was played before by Zenon. They are responsible in the last instance before the State for the arrears of the contractor. We know several of the potters who worked in Philadelphia before the death of Apollonius. The most prominent were *Paesis* and *Lysimachus* (P.S.I. 441 and P. Lond. Inv. 2310) and their associates. They have some hired labourers (μισθωτοί) in their service. Special workmen in lead were engaged in repairing the jars (P. Lond. Inv. 2325).

APPENDIX I

P.Z. 52, year 38 brings supplementary evidence on *Hermolaus* In this papyrus he appears again as the oeconome of the Memphite nome. I see no reason to suppose with Edgar, P.Z. V, p. 27, that he was the oeconome of the Aphroditopolite and managed at the same time some districts of the Memphite. I believe that he was the oeconome of the Aphroditopolite for a short period only. *Ammonius* who was mentioned in P.S.I. 524 and 510 appears again in P.Z. 63 and 64. He was the oeconome of one part of the Herakleopolite nome. The constant mention of the oeconomes of the neighboring nomes in the correspondence of Zenon confirms my view of the δωρεά of Apollonius as consisting of lands which belonged to different nomes but formed one economic unit under the management of Zenon. Under Euergetes, in his first years, the oeconome of the Arsinoite was *Hermaphilus* (P. Petrie III, 43 (2), col. II, l. 8; col. III, l. 16; col. V, l. 8; verso col. II, l. 7; col. III, 20; P.S.I.

386, year 2; 399; 417; 598; 639; P.Z. 62, year 6; P. Lond. Inv. 2309, verso, l. 9). P.S.I. 417 shows that he was oeconome of the Arsinoite even in the last years of Philadelphus.

APPENDIX II

A series of new documents published by Edgar belong to the first eight years of Euergetes. It fully confirms my view of the position occupied by Zenon in Philadelphia during this period of his life. During his stay in Philadelphia when he was the manager of the estate of Apollonius, and earlier when he lived in Alexandria and abroad, Zenon has not confined his activity to the affairs of Apollonius only. He steadily built up his own fortune. One of his favorite occupations was a kind of private banking. He lent money to everybody, especially to his subordinates. P. Z. 65 tells the long and complicated story of one of these operations of Zenon (cf. P.Z. 58). Zenon has lent 900 drachmae to a certain Philon, who was employed by Apollonius, at the rate of 2 per cent a month which makes 25 per cent a year. In the year 4 of Euergetes the money was not yet paid. The payment of interest stopped with the year 29. Before this time Zenon regularly intercepted the salary of Philon taking it as payment of the interest and of a part of the capital. It was easy for him to do so as he was the oeconome of Apollonius at this period. When he was transferred to Philadelphia the payments naturally stopped. We have seen that the same operations were carried out by him in Philadelphia also. Moreover we have had every reason to suppose that Zenon during his stay in Philadelphia acted for several nomes as a general contractor of the duties paid by the owners of vineyards. No wonder that he became a rich man. I have no doubt that even before the death of Apollonius he owned in the neighborhood of Philadelphia large vineyards and herds. Along with him the whole "Carian nest" of his friends and relatives, all employed either by the State or by Apollonius, acted in the same way. But the most brilliant time of Zenon began after the death of Apollonius. I am inclined to suppose that he profited by the disgrace and execution of his master and emerged out of this catastrophe as a man of large means and of great influence. I have already pointed out that under Euergetes he

stood in the centre of business interests in which many other persons, the whole "Carian nest," were involved. Besides Jason and the others, whom I have mentioned in the text, to the same company belonged *Kleon* and *Sostratus*, the sons of Jason, and probably the three brothers Damis, Etearchus and another Sostratus, of whom the first two were nomarchs. It is not easy to separate the affairs of these relatives of Zenon from the affairs of Zenon himself. They all form one trading company. The interests of this company were many and various. I enumerated a part of them in the text. The Cairo papyri furnish us with a large amount of new evidence on the same subject. P.Z. 62, year 6 of Euergetes shows that Zenon still was the general contractor of the vineyard duties for several nomes. His agents or subcontractors were *Demetrius* and *Hippocrates*, cf. P.S.I. 439 and 528. On the verso of P.Z. 61, year 5–6 are mentioned two large vineyards of 60 and 30 arurae owned by Zenon, cf. P.S.I. 393, l. 20 f. P.Z. 60, year 5 gives another instance of his large herds; he rents his herds to the Arabs, whom I have mentioned repeatedly and provides them with pastures; he may have rented large pasture lands from the State. On the verso of the same papyrus he is interested in a herd of pigs which was rented by his brother Epharmostus to his old associates of the time of Apollonius, Pyrrus and Pytheas. One thousand beehives were owned by Sostratus and Kleon, the sons of Jason, one of Zenon's associates (P.Z. 63, year 7). No doubt Zenon was interested in their business. Another associate of Zenon in this affair was *Xenophon*. The same two men, Sostratus and Kleon, were large dealers in hay. They probably furnished the cavalry of Euergetes with hay during his expeditions to Syria. They speak of 150,000 bundles of hay owned by them and of a ship rented by them for 1200 drachmae for the transportation of hay (P.Z. 63). By the way it is interesting to compare this operation of Sostratus and Kleon with the anecdote told by Machon, the contemporary of Philadelphus and Euergetes, one of the most famous authors of the new comedy, whose residence was Alexandria (Christ-Schmid, *Gesch. der gr. Lit.*, II, p. 36). The anecdote is preserved by Athen., XIII, 583. It deals with a hetaera, Hippe (Ἵππη) by name, who was kept by Theodotus the superintendent of hay (*τὸν ἐπὶ χόρτου τότε γενόμενον*). This Theodotus may have bought

the hay from Sostratus and Kleon. He profited heavily and Ptolemy (Euergetes?) knew it, but probably did not mind it. Was he the same Theodotus, the Aetolian who later betrayed Philopator in Syria? His rivalry with Sosibius might have begun under Euergetes, under whom Sosibius occupied an influential post. Finally Zenon dealt largely with baths, renting and probably building them (P.Z. 64, year 8). On the relations of Zenon to the horsemen of Philadelphia new evidence is furnished by a papyrus of Cairo (unpublished) a copy of which was kindly sent to me by Edgar. It is a letter of Ptolemaeus (probably the strategus, cf. P.S.I. 542) to Zenon: Πτολεμαῖος Ζήνωνι χαίρειν. γέγραφά σοι ἵνα εἰδῆις τὴν γενομένην ἐπὶ Φανίου οἰκονομίαν τοῖς ἱππεῦσι· ἀφέηκεν γὰρ αὐτοῖς πᾶσι τοῦτο τὸ ἔτος τὰ γενήματα, εἰς δὲ τὰ ἔπειτα ἐπὶ τοῦ ἀρι[θ]μοῦ τοὺς ἵππους ἀναστῆσαι· σὺ οὖν ἀπό[στειλον] ὃς παραλήψεται τό [τε] [σ]ήσαμον καὶ τὸ λοιπὸν τ[ῆς κριθ]ῆς τὸ ἐν τοῖς ἱππεῦσι, i. e. "Ptolemaeus to Zenon greetings. I have written to you for information on the arrangements taken by Phanias as regards the horsemen (or 'the orders issued by Phanias'). He released to them all their revenues in kind for this year, but for the next year they must have their horses in full numbers. Send therefore somebody to collect the sesame and the rest of the barley due by the horsemen." Phanias is the same secretary of the horsemen whom I mentioned in the note 91. The new document shows that I was right in assuming in the Appendix V that the burden of ἱπποτροφία (maintenance of the horses) lay with the horsemen and that they were obliged to keep the horses in full numbers according to the requirements of the military administration. Which was the part played by Zenon in these matters? It seems that he was an intermediary between the horsemen of Philadelphia and the military administration, an agent of the government and a representative (a kind of business manager) of the horsemen at the same time. Here again he seems to have played the part of a tax farmer and was responsible for the payments due by the horsemen to the State. As the Cairo document bears no date we cannot decide whether Zenon played this rôle of the representative of the horsemen under Apollonius also and retained it later or whether he became responsible for the horsemen after the death of Apollonius.

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